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R. L. Mumme

1978-1980

Journal &

Species accounts

May FLORIDA Pasco Co., 4 mi E of Zephyrhills.

Clear, warm 0930 - 1530 w/ Manny Lopez on Upper Hillsborough FDA, (SWFWMD).

species Acadian Flycatcher 1 (River Forest) Am. Redstart (♀)
Eastern Bluebird (nest, one well-feathered young) sp. acct.
Red-headed Woodpecker (sp. acct.)
Yellow-throated Warbler (several singing in cypress)
Bobwhite (very abundant)
Bachman's Sparrow (singing ♂♂)
Brown-headed Nuthatch
Yellow-throated Vireo (singing ♂)

4 May FLORIDA, Hillsborough Co., Hillsborough River (17-Runs)

Clear, warm, 0630 - 1200, breezy. Canoeing from the fishcamp up to the runs, saw or heard.

Red-eyed Vireo (50) Parula Warbler (40)
Yellow-billed Cuckoo (2) Summer Tanager (3)
Yellow-throated Vireo (2-5) Limpkin (1)
Prothonotary Warbler (6, including pair building nest one of posts from old cattle tram)
Cardinal (2 nests in trees overhanging river, 4-5' high. One nest with broken eggshells, another with 4 warm eggs)

7-19 May FLORIDA, Highlands Co., Archbold Biological Station

Arrived with Linda Weinland to help Glen with Jay census. Debbie Moskovits, Lisa Klein also there. Most notable thing seen was a fledgling Parula Warbler being fed by a male in the vicinity of the garage and Cabin 6. First nesting record of Parulas for ABS. 3 Swallow-tailed Kites at N. boundary of station (both 19 May).

26 May -- FLORIDA, Leon Co., and GEORGIA, Thomas Co., Tall Timbers Research Station and a surrounding areas -- Partly cloudy, hot. 0830-1430. Wilson Baker and Bobby Crawford took me to several Red-cockaded Woodpecker colonies, including some in a virgin longleaf pine forest south of Thomasville, Georgia. Saw many roost and nest trees with the considerable amount of sap around the cavity. Wilson mentioned that there seemed to be very few ♀♀ Red-cockadeds around, which might have something to do with their recent decline within TTRS. Suggests possible sexual differences in dispersal, as in Scrub Jays, Acorn Woodpeckers. Wilson said about 50% of pairs have helpers. Also talked to Todd Engstrom, who is working with about 300 colonies of RCW in Appalachicola National Forest.

RCW was a life bird, and also saw about five Yellow-breasted Chats. Other interesting birds were Orchard Oriole (1st yr. ♂), Blue Grosbeak (2), Indigo Bunting (15) Field Sparrow (2).

29 May -- GEORGIA, Rabun Co., Caldwell's property N. of Mountain City off Wolf Fork Rd. -- Arrived yesterday at 1600. Has been clear to partly cloudy to overcast, with intermittent light showers. Has been warm during day, cool at night.

31 May -- Finished up my hiking and bird observations today. Summary of field observations is given below. (28 May, 1600 to 31 May, 1600)

Turkey Vulture -- 2-5, not very common

Sharp-shinned Hawk -- 1 31 May

Broad-winged Hawk -- a pair on Double Knob 30 May, 1 today by the cabin

Ruffed Grouse -- I flushed an adult with at least one or two young 30 May at Black Rock Mountain

31 May -- GEORGIA, Rabun Co., (cont.)

State Park. Today on Double Knob heard distant drumming.

Yellow-billed Cuckoo -- 3 heard or seen around Double Knob, 30 + 31 May.

Barred Owl -- A pair was stationed very close to where I camped last night on the eastern slopes of Double Knob (30-31 May). They made the usual assortment of hoots, cackles, "sniffles", etc. At least two others also heard.

Whip-poor-will -- At least two heard at dusk, 28 + 29 May

Chimney Swift -- Common in the valley, occasional around mountains

Ruby-throated Hummingbird -- 1 30 May

Pileated Woodpecker -- All woodpeckers seemed surprisingly scarce, but Pileated was the only one regularly heard (seen only twice).

Downy Woodpecker -- 1 31 May

Great Crested Flycatcher -- About 3-3 scattered individuals

Acadian Flycatcher -- About 5 singing birds along Keener Creek, including one near cabin.

Blue Jay -- Not many (maybe 10) seen in the 4 days

Crow (common) -- Several seen or heard around mountains

Carolina Chickadee -- Perhaps the most abundant passerine in the mountains.

Tufted Titmouse -- Only a few (3-5).

Catbird -- 1 near cabin

Wood Thrush -- Uncommon in the mountains, 3 seen or heard

Red-eyed Vireo -- Common in the leafier deciduous slopes (30-50)

Solitary Vireo -- Tended to occur in the more mixed deciduous-pine areas, but less common than Red-eyed (maybe 5-10 seen)

31 May -- Georgia, Rabun Co. (cont.)

Black + white Warbler -- common (25-50)

Worm-eating Warbler -- One on Keener Mt. 30 May and BRMSP 30 May

Parula Warbler -- About 5-10 singing ♂♂, mostly along Keener Creek

Magnolia Warbler -- ♂ near summit of Keener Mt. 30 May.

Black-throated Blue Warbler -- 2♂♂ at BRMSP 30 May and 1 ♂ Double Knob 31 May.

Black-throated Green Warbler -- At least 2-3 ♂♂ singing in the hemlocks along Keener Creek. Both The "zoo zee zoo zoo zee" and "zee zee zee zee zoo zee" songs were heard

Yellow-throated Warbler -- One near cabin 29 May and one on Keener Mt. 30 May.

Chestnut-sided Warbler -- ♂ at BRMSP 30 May, giving "rambling song," not "Please to meetcha" (Peterson)

Ovenbird -- Common, 15-20, singing "teach TEACH....", no second syllable

Louisiana Waterthrush - One along Keener Creek near Joe Gap 29 May.

Hooded Warbler -- 3-4 singing ♂♂, one near cabin

Scarlet Tanager -- About 5 singing ♂♂ heard (one seen) in upslope, oak-dominated woods, 1 ♀ at BRMSP 30 May.

Cardinal -- Fairly common 10-15

Rose-breasted Grosbeak -- Singing ♂ 30 May, BRMSP

Indigo Bunting -- Very common in farming areas, open fields.

Rufous-sided Towhee -- Uncommon, no more than 3 seen.

Field Sparrow -- one singing ♂ along Persimmon Rd, cleared area.

Song Sparrow -- very common in Wolf Fork Valley, a few heard singing in mountains, a nest with two young < 5 days found 29 May at Caldwell's driveway.

addendum -- E. Wood Peewee -- 1, BRMSP 30 May.

3 June -- FLORIDA, Hillsborough Co., N. Tampa area -- Partly cloudy, hot. Working USF area on Tampa summer bird census with Wayne Hoffman, Stu Santos, Susan Cox, Linda Benson, Linda Weinland. Most noteworthy birds were 2 ♀ Am. Redstarts on USF golf course. Also: Osprey (7, 2 young in nest on Fletcher)

Yellow-billed Cuckoo (12)	Hairy Woodpecker (2)
Carolina Chickadee (4)	Eastern Bluebird (3)
Blue-gray Gnatcatcher (6)	Prothonotary Warbler (2)
Summer Tanager (5)	Bachman's Sparrow (4)

25 June -- FLORIDA, NW Sumter Co, Gum Slough Springs run off Withlacoochee River -- Canoeing with Ken Bradbury 0900 - 1600 hrs. Heard Acadian Flycatchers (2-3), plus a possible Hooded Warbler singing along the swamp forest. Did not see the bird, but heard a good "Weeta Wee Tee-o" song from the understory of the swamp near the stream. Could have been a Carolina Wren.

Yellow-throated Vireo	3	Parula Warbler	10
Red-eyed Vireo	10	Prothonotary Warbler	3
Limpkin	2		

23 July -- FLORIDA, Hillsborough Co., Tampa, Hooters Pt. During high tide (1600) with Wayne Hoffman, Stu Santos, Linda Weinland, Susan Cox, saw one Curlew Sandpiper. Lynn and Brooks Atherton were also there, had seen it 21 July. Dowitchers (sp.?), Western Sandpipers, Dunlins, Mottled Ducks, Black Terns, Sterna sp., also present.

7-8 August -- FLORIDA, Hillsborough Co., T. Terrace. ♀-plumaged Redstart in backyard

18 Aug -- TEXAS, Junction, Kimble Co. -- At rest stop along interstate saw first Bewick's Wren in scrub oak - Juniper habitat. Earlier, many Swallows (Barns, perhaps Bank + Cliff) seen moving generally south east of San Antonio. West of Sonora, Texas, vegetation became more arid, desertlike, much less oak and juniper. Mesas. Turkey Vultures only bird seen that was common, some Mourning Doves.

19 AUG -- TEXAS, NEW MEXICO, E. ARIZONA -- Along I-10, saw Roadrunner east of El Paso, followed by many White-necked Ravens and Swainson's Hawks along the desert plains of New Mexico west of the Rio Grande. Western Kingbird, Brown Towhee ~~Black-throated Sparrow~~ Blue Grosbeak around Willcox Arizona. Blacktail Jackrabbit, Spotted Ground Squirrel, Chemidophorus, Leopard Lizard.

20 Aug -- ARIZONA, esp. Picacho Peak State Park. Birded is a Saguaro cactus desert, 0830 - 0930 hrs. Cactus Wrens abundant, also saw Black-throated Sparrows, and ♀ House Finch, Gilded Flicker, Gila Woodpecker. Also a family of Thrushers that I thought at the time were LeConte's. Further check of Peterson does not discount Curve-billed, although birds at Picacho did not appear to have spots. Abundant Yuma Antelope Ground Squirrels, Sylvilagus sp.

White-winged Dove

22-23 Aug -- CALIFORNIA, Berkeley campus. Have seen Steller's Jays Scrub Jays, Chestnut-backed Chickadees, Brewer's Blackbirds, Brown Towhees, "Oregon" Juncos, numerous Morning Doves.

24 Aug -- CALIFORNIA, Alameda Co., Berkeley campus.

Around campus and Strawberry Canyon saw several large mixed flocks of Chestnut-backed ~~black~~ Chickadees and Bushtits. a pair of wrentits in evergreen oak + ~~chaparral~~ chaparral.

Also Hairy woodpecker (1) Orange-crowned Warbler (1)
Rufous-sided Towhee (2), very unlike eastern birds in call/app.
Steller's Jay (3) Scrub Jay (5)
Song Sparrow (8) House Finch (1 ♀)

26 Aug -- CALIFORNIA, Marin Co., Muir Woods, Bolinas Lagoon, Mt. Tamalpais area. 0800 - 1600. clear, cool (65° F), breezy

Birded these areas and saw 6 new species

Winter Wren California Gull Western Gull
Townsend's Warbler Hermit Warbler Red-breasted Nuthatch

Winter wrens were abundant along the forest floor of Muir Woods. Many Chestnut-sided Chickadees also seen there, one Hairy woodpecker, Steller's Jays (5). Possible Neurotrichus gibbsi inlitter.

Blacktail Deer (Doe/fawn)
western Gray Squirrels

Gulls were at Bolinas Lagoon. Ringbills were abundant there, but one (California) was slightly larger than the Ringbills, but colored like a Herring Gull. Red spot on bill, but legs yellow-greenish and not as large as a Herring Gull. Mantle darker than Ringbills. Showed "foot-paddling" foraging behavior while nearby Ringbills did not. About 15 Western Gulls seen around the lagoon. also

Long-billed Curlew (3) Marbled Godwit (5)
Whimbrel (2) Pine Siskin (5)
Willet (15) Phalacrocorax spp.
Brown Pelican Common Crow
Black-bellied Plover Harbor Seal (Phoca vitulina) 50
California Sea Lion (1) Zalophus californianus

Hiked along Cataract and Simmons Trail on Mt. Tam, 1300-1600 hrs. Townsends Warbler (1 ♀ orimm)

26 Aug (cont) -- and 2 Hermit (1 imm., 1 ♂) were seen in Douglas Firs next to a grassy meadow along the Cataract Stream. Nuthatchrs (10) seemed abundant in the Fir-Oak Madrone forests along the stream runs. Also saw 3 Empidonax sp. in the ravines. Not markedly yellow, little contrast between throat + breast, underparts somewhat buffy, but not white or yellow. Very high pitched songs + calls. Appearance suggested Dusky or Hammonds, voice western, habitat Hammond's or Western. Probably Western, but I did not note a breast as yellow as the plate in Peterson. Other birds

Scrub Jay (5) Steller's Jay (5) "Oregon" Junco (5)
Bewick's wren (2) Red-tailed Hawk (2) Warbling Vireo (1)
Chestnut-sided Chickadee (5)

Fleeting glimpses of California Quail, Acorn woodpecker, White-throated Swift.

29 Aug - CALIFORNIA, Monterey Co., Hastings Reservation.

1 Sep Have made my first visit to Hastings with Walter Koenig, Pam Williams, John Davis, etc. New birds are Black Phoebe (2) Nuttall's Woodpecker (5), Plain Titmouse (10), Yellow-billed Magpie (large flocks, about 35, on Carmel Valley Rd.) Acorn Woodpecker Hutton's Vireo (1), Western Bluebird (10) Anna's Hummingbird (3), Black-headed Grosbeak (1). California Quail (30) Western Meadowlark (1), Lesser Goldfinch (1). Also

Turkey Vulture (10)
Cooper's Hawk (2)
Red-tailed Hawk (5)
Am. Kestrel (1)
Morning Dove (20)
Hairy Woodpecker (3)
Scrub Jay (15)
Com. Crow (5)

Bushtit (5)
White-breasted Nuthatch (3)
Bewick's Wren (2)
House Finch (2)
Brown Towhee (20)
Lark Sparrow (1)

29 Aug - 1 Sep (cont) Mule Deer, Blacktailed Jackrabbit, Desert Cottontail, California Ground Squirrel abundant. Walt caught one Dusky-footed Woodrat (Neotoma fuscipes) in his garden trap. Western Fence Lizard (abundant), Western Skink, (1)

2 Sept -- Saw numerous Violet-green Swallows, 2 Band-tailed Pigeons flying over the Arnold. Helped Walt set up artificial Granary NE of gate.

3 Sept -- California Thrasher in ~~chapparal~~ chaparral behind Red House at Hastings.

Red-headed Woodpecker

1978

May

Melanerpes erythrocephalus

FLORIDA, Pasco Co., 4 mi E of Zephyrhills. Clear, warm, light breeze; Pine flatwoods. 1500 hrs. w/ Manny Lopez

Saw a nice example of interspecific aggression between Red-headed Woodpeckers and a ♂ Red-bellied Woodpecker. The ♂ RB landed in a tree about 100 m from the nest tree of a pair of RH. One RH, nearby, supplanted the RB several times in succession, the RB flying short distances away each time. Once I heard the RH give the "chärr, chärr" call (Kilham, 1977). Finally, the RB began a long flight more or less around the perimeter of the RH territory, with the RH in pursuit. The other RH of the pair had been in the nest cavity (incubating?), but it left the cavity and joined in pursuit. Pursuit ended about 200 M from nest tree.

2 May FLORIDA, Hillsborough County, Temple Terrace Clear, warm light breeze. Longleaf Pine - Live Oak woodlot between 4th + 5th hole. 1900 - 200 hrs

Watched the pair of RH's that I had noticed the day before. One of the pair spent much of the time around the large dead tree, poking around in several of the incipient and existing cavities. Much tapping and moving about in tree. Birds fed by scanning open ground, then flying to ground to pick up insects.

Again saw mild aggression against a Red-bellied Woodpecker, ♀, mildly supplanted by the RH that had been working on nest cavities. This occurred about 50 M from nest tree. Also saw agonistic behavior with Starling at roost tree, with RH briefly giving "quirr, quirr." Saw no aggression when Common Flicker landed and flew through territory (twice) or when another RB landed 30 M from nest tree. Neither RH appeared to roost in dead tree.

Lumme, R.L.
1978

Red-headed Woodpecker
Melanerpes erythrocephalus

8 June -- FLORIDA, Hillsborough County, Temple Terrace -- clear, hot, 0850 - 1000 hrs. winds 0-15.

Returned to the woodlot along 4th & 5th hole, where the pair I watched on 12 May. Now a good nest in very top of dead Longleaf. Appeared to perhaps be incubating, but not especially attentive. Witnessed copulation at 0930: ♀ leaves nest, perches on branch beneath cavity, ♂ flies in, lands to left of ♀, mounts by flapping to directly on back of ♀, then slipped to the left, propping himself with left wing, maintaining cloacal contact. Copulation about 5-7 sec. ♀ was sleeked, nearly horizontal; neck, wings, tail drooped. I may have heard very quiet calls, similar to the territorial "charr charr", much more subdued, as the ♂ landed next to the ♀.

My impression was that the ♂ was more attentive at the nest cavity than the ♀. Starling nest with young in cavity in same tree, below RH nest.

8 July -- (same locale as above)

Nest still active, but appears to be young in the nest, as adults looked like they were bringing food to the young. Still a good bit of attentiveness.

15 July -- (same locale as above)

Arrived at the nest around dusk, and an adult RH was already inside the nest cavity. I kicked the nest tree, flushing the bird out, but it returned to the nest within a few minutes.

Mumme, R.L.
1978

Eastern Bluebird

Sialia sialis

May

FLORIDA, Pasco Co., 4 mi. E. of Zephyrhills.

Upper Hillsborough River FDA. with Many Lopez

Found a bluebird nest with one well-feathered young. Cavity was in a 4-inch thick stump of a *Pinus palustris*. The stump was about 5 ft high, the nest cavity about 4 ft above ground. Bark on stump. Stump very decayed, weak, cavity with cracks, some areas covered by bark only. In open pine flatwoods, cleared of most longleaf pines. Some Scrubby oaks. Adults fed in denser flatwoods ~~the~~ nearby.

Lumme, R.L.
1978

Acorn Woodpecker
Melanerpes formicivorus

1 Sept -- Hastings Reservation, Carmel Valley, Monterey Co.
I arrived 29 Aug from Berkeley. Weather: warm, clear days, cool nights. Birds fairly inconspicuous, mostly sapsucking, little acorn gathering. Seems to be poor acorn crop, only Golden Oaks and Black Oaks on Arnold seem to be producing. Watched "Big Tree" (4 birds) pre roost behavior 31 Aug and 1 Sept. Each time 2 birds exchanged mountings. Helped Walt Koenig drill holes in artificial granary, placed in Sycamore tree 31 Aug, 1 Sept. Two unbanded birds trapped at "Plaque" 30 Aug, banded. One ad. ♂, one juv.

Had idea for research project. Using mounted birds, ~~use~~ taped playbacks, determine if ♂♂ on territory respond ~~very~~ more vigorously to intruding ♂♂ during early nesting (egg-laying or prior), late nesting, non breeding, than to ♀♀. Also test response to mounted ♀♀ during basic 3 periods.

Intragroup Relations

Dominance ?

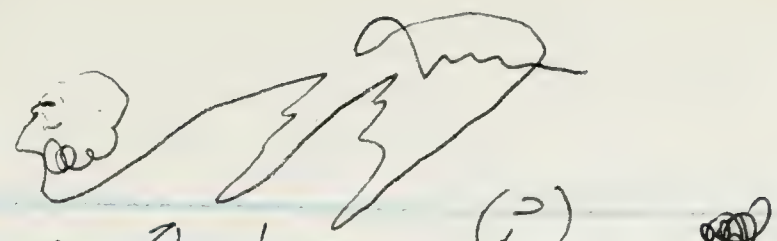
Feeding of young? } cooperative aspects
Acorn storage
Defense of territory

Were routed intruders of each sex

Ligons hyp. that nestlings are resources, In AW, if true, ♂♂ should help ♂♂ nestlings, juv, 1st year birds more because they might eventually move with them. Dom ♂ shouldn't show this bias. Kin sel, ♂ helpers should help both sexes equally. Alt. hypothesis that intermale competition balances out

Scrub Jays, you might expect ♂♂ helpers to preferentially help younger ♂, since they will stay longer, enlarge territory, etc. New (small) groups should want more ♂♂ (both AW + SJ) as offspring perhaps?

20 Sept



How many cases of ♂ breeding (?) on natal territory. ♀ breeding (?)

THAT'S THE PROBLEM

WHO ARE THE G.D. BREEDERS

Dominance study should include groups.

1. Pair, young of year
2. Pair, with young from two or three years
3. Several Adults, preferably of known age + origin, Pot 2 breeders
4.

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7 Oct What about brood patches in ♂♂ during breeding season?

Could an Acorn Machine (as in Woolfenden + Fitzpatrick) be used to test for dominance relationships in Acorn Woodpeckers. ..... Machine Acorn or a Peanut Machine, for that matter;

19 Nov -- Paul Shermans paper about Terrestrial Alarm calls in Ground Squirrels. Matrilineal kin group structure, ♀ call more, because more close relatives nearby than males. In Scrub Jays and also perhaps Acorn Woodpeckers, ♂♂ would be more likely to give alarm calls over predator.

Mobbing experiments? Cardboard models? (for Scrub Jays, certainly. Talk to Bruce Barbour)

Also thinking about Brood Reduction ideas.

Testable method! When food short, ♂♂ should exclude ♀♀ sibs from granaries!!! (over)
helpers

Idea. Selfish
nestlings
♂♂ are more valuable to other ♂♂ helpers if Glen's Scrub Jay ideas are correct (♂♂ hang around longer, enlarge territory, etc) Parents should encourage equal treatment (=equal investment) Perhaps why juv. plumage ID, no sexual ~~behavior~~ characteristics (plumage or behavioral) until later.

Weakness; Perhaps birds can sex each other in late juv or fledgling stage. How about ♂♂ at Plaque moving with imm. (1st year) bird of unk. sex in late August. If it moults to ♂ hmm. (Perhaps nestlings do sexual recognition bit) Nestling "knows" its ♂♂ or ♀, can make choice to move.

How testable. Also, most birds juv. can't be sexed. Probably worthless.

♀ Nestling should try to convince brothers that she is ♂

Kin Selection would call for equal treatment

Walter has good data on why live in groups Now why + how much help
Do all have stake in reproduction? Certainly 1st year birds do not. How much help do others provide

Interesting idea!

During acorn shortages in winter,

Dom ♂ (breeder) should show no preference on who he excludes, except birds from outside territory (i.e. he should allow his offspring access over others, but he should have prime access.)

An old ♂ helper (dom?) raised on territory over all but breeder, should preferentially exclude ♀♀ from granaries during when acorn supplies limiting. Younger ♂♂ sibs should be allowed in (and even unrelated subs) as long as there are enough acorns for dom breeders, himself, but only a couple more.

Problems: Need correct known demographic group, "proper" food shortage.

Perhaps this is one reason ♀♀ disappear earlier, exclusion from granaries. This effect would not happen in SJ, though, and argument circular

Imp. Questions. How much more often do ♂ breed in natal territories then ♀? Is difference as clear as in SJ.

Is mor ♂/♀ mortality difference at adult-on-territory stage or young-bird-dispersing stage? Not likely due to resting, as duties fairly well split up between sexes.

a

Questions:

Haystack Blomquist.

① Did #246 ♂ + son #300 ♂ move independently, or driven out by #171 ♂, #173 ♂, which moved in at same time (Late Dec 1976)?

② Fate of #246, #300 (which unwatched group), and Fate of # 301, which disappeared at same time?

③. One or both ♀♀ laying in nest in 1978, (Mother, presumed daughter, or both?

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④ What is B. Pink?

⑤ What do numbers after some colors signify. (ie, #195)

Big Tree:

⑥ MacRoberts' say territory abandoned July 1974, ~~was~~ was abandonment short (?)

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⑦ Dead unnatural Cause?

⑧ Tan Bands?

⑨ Green Yellow, as #88?

⑩ MacRoberts numbers - territory names?

⑪ Moved Unwatched Group: How determined?

⑫ Has Walt seen massive movements ass. with Acorn crop failure, as did MacRoberts.

⑬ Could Rev. on Poison Oak Hill been in response to Acorn failure, displacement of groups?

⑭ Territories on map: ⓐ Low. Arn 2 ⓑ Blomquist ⓒ Gazebo ⓓ L. Red Hill ⓔ Arn Springs ⓕ MacRoberts ~~ⓖ~~ ⓖ Westgate ⓗ School Hill West ⓘ Keep Out ⓙ Nr. Lambert ⓚ Tregea ⓛ Maggie.

⑮ MacRoberts say ~~[illegible]~~ Up Arnold 2 taken over by Arnold 2

— Light BdB / 1B Red

Black Oak

① Dead of unnatural cause #103
② 1975 Nestling - fledgling situation

Lower Hay

① 525
② New fledglings, incest is best?

Arnold 1

① fledgling 447
② why did 105 leave, breeding ♀ (Perhaps because of ~~nest~~ failure ~~to~~ of fledglings to survive Driven out by other moving in
③ Did 266/615 help feed (unrelated) young
④ 266/615 + 555 a pair,

School Hill:

① Did #88 ♂ help a great deal in raising ♂♂ 194 + 19[illegible] which moved with him to ~~School~~ 1500?
② Did ♀ 348 die during nesting, new ♀ moved in, help? (What happened!)

Big Tree (20)			74	75	76	77	78
110	♀	R-lB/R-lB R-lB/R-lB	Banded as adult July 72		disappeared		
111	♂	lB/B Pi-Or lB/B Pi-Or		disappeared			
200	♀	Mauve / R M / R		Nestling	disappeared		
104	♂	Or-Br/Or-Br Or-Br/Or-Br	Banded as ad. at Arnold 1 July 1972	Moved in as adult			✓
108	♂	Gr-Y/Gr-Y Gr-Y/Gr-Y	July 1972 Banded as ad. Arnold 1	Moved in as adult		Disappeared	
(599) 264	♀	Or/Bl-Pu M/Bl-Pu			Moved in AU	Banded Disappeared	
600	♀						✓
403	♂	Or/M Or/Bl			Nestlings		✓
404	♀	dB-R/dB dB-R/M			Nestlings		✓
405		W-Bl/W-R M/W-R			Nestlings	Not seen after Banding	

— Light B d B / 1B Red

Haystack (11) Blomquist

1974 | 1975 | 1976 | 1977 | 1978

J F M A M J | J F M A M J J A S O N D

247 (527) ♀ — White - D Pink / Orange; White - D Pink / Orange — Present as ad; Presumed Banded; ✓

246 (528) ♂ — Yellow - D Pink / M; D Pink - Yellow / L Blue - Yellow — Present as ad; Presumed Banded; Moved to unwatched group

529 ♂ — Fledged (Parents presumed 246, 247); Disappeared

530 ♂ — Fledged; Disappeared

175 — Not seen after banding

176 ♀ — Nestlings (Parents presumed 246, 247); ✓

177 — Disappeared

178 ♀ — Disappeared

300 ♂ — (Parents presumed 246, 247) Nestlings; Moved to unwatched group

301 ♂ — Disappeared

171 ♂ } From same nest, Lower Haystack (Fledged 1975) — Moved in as ad; ✓

173 ♂ } — Moved in as ad; ✓

448

449

450

451

Light B d B / 1B Red

1979 Ronald L. Mumme

Sayornis nigricans
(Black Phoebe)

Hastings Reservation, Monterey County, CA

7 July Found a Black Phoebe nest today located under the bridge of Carmel Valley Road and Finch Creek, the first crossing SE of Martin Road. The nest was constructed on top of a ledge formed by one of the support girders, ~~under~~ roughly in the middle of the bridge. Four well-developed nestlings were present. All were well-feathered, showed no trace of an egg tooth, and only slightly enlarged rictal flanges. It looked like that they might fledge within a few days, although they showed no alarm at my approaching the nest and handling them.

17 July At the creek again today, and saw two fledglings being fed by an adult.

1979 Ronald L. Mumme

Oreortyx pictus
(Mountain Quail)

Hastings Reservation, Monterey County, CA

7 July While watching woodpeckers at Finch Creek near the Carmel Valley Road (1st) crossing, I watched a family of Mountain Quail descending from Poison Oak Hill, presumably heading toward Finch Creek and water. The two adults had 9 juveniles in tow; All looked roughly 2/3 the size of the adults.

1979 Ronald L. Mumme

Buteo lineatus
Red-shouldered Hawk

Univ. S. Florida Golf Course, Tampa, Hillsborough County, FL

29 Dec On the Tampa CBC with John Post & Susan McIlray about 1100, John walked through the Brush on the northwest side of the sixth hole pond, flushing a young Red-shouldered Hawk carrying a dead Green Heron. The hawk flew over the dirt road (where Susan & I were standing) and over the ditch into the patch of pines at the bend in 46th street, northwest of the pond. We followed the hawk in and flushed it again. beneath its first perch in the pines was the decapitated cold & stiff body of ~~a~~ the heron. At its new perch in the Slash Pines the hawk began picking the flesh of the head of the green heron. It broke off one of the mandibles, and appeared to pick the flesh & brain cleanly off the skull. We found a portion of the skull later, and there was absolutely no ~~sh~~ shred of flesh or brain.

Weather was warm, partly cloudy. Don't know if the hawk killed the heron, or just picked up a dead one

1979 Ronald C. Mumme

(Golden Eagle)
Aquila chrysaetos

Hastings Reservation, Monterey County, CA

15 July While doing the "grasshopper walk" near the Blomquist - Pump cattle pond, about 1730, saw a Golden Eagle circling over the Blomquist knoll - MacRoberts area. It was being continually harassed by a pair of Red-tailed Hawks, which dove at it constantly, often giving their shriek calls in the process. Although I did not have binoculars with me, the eagle appeared to be an adult.

1979 Ronald L. Mumme

Parus

(Chestnut-backed Chickadee)

Hastings Reservation, Monterey County, CA

17 July While watching woodpeckers at Road 3, I saw five chickadees, the first I've seen in all my time at the reservation. They were foraging in a flock adjacent to the road, and while I watched them (around 1800 hrs) they foraged in a low, shrubby *Quercus chrysolepsis*.

21 Aug Two were seen briefly near Finch Creek while watching woodpeckers at Road 1.

1979 Ronald L. Mumme

Sialia

(Western Bluebird)

Hastings Reservation, Monterey County, CA

17 July While eating dinner with Nancy Joste at Hastings Cabin around 1945, saw some interesting behavior in three juvenile Western Bluebirds. The bluebirds were perched on the utility pole in front of the cabin, and were mounting each other in rapid succession. Very similar to pre-roost mounting in Acorn Woodpeckers. First one of the spot-breasted juveniles would mount a second for a few seconds, then the two would switch. I saw about 5-8 bouts of this before the three flew off.

1979 Ronald L. Mumme

Parula americana
(Northern Parula)

Hastings Reservation, Monterey County, CA

22 July While walking by the Y after collecting the malaise trap insects on School Hill at 0940, I actually came up with a first (I think) record for the Reservation, a Parula Warbler. My attention was drawn to the bird first by its song, which struck a familar note and made me think that it ~~may~~ might be a Parula warbler. I then found the bird (a ♂, of course, from the song) foraging high in the group of Coast Live Oaks NE of the Y along the Lab Road. I ran up to Red House to get Walter + Pam, and later got John Davis, and we were able to study the bird fairly leisurely for about 15-20 minutes, noting the small (for a warbler) size, "rounder" appearance, Yellow throat and breast with dark breast band, blue back with the greenish patch on the back, and two white wing bars. The bird sang several times while we watched it before it flew off to the east, landing in some Live Oaks next to the Davis' house. We toyed with the idea of collecting it (Walter had gotten the gun) but it flew off before we came to a decision.

Note the date, which some might consider early, especially for such a rare, 1,000-mile displaced fall migrant. However, in Florida I recall seeing Parula's in early July in places where I was certain they did not breed, so the 22 July date doesn't seem that unusual. Also note that the song, which I recognized to be a Parula, was nonetheless noticeably different than Florida birds I am familar with. The song seemed to have less of a staircase effect, and no

1979 Ronald L. Mumme

Parula americana
(Northern Parula)

Hastings Reservation, Monterey County, CA

(22 July) marked drop at the end. Further, note that the weather today was very southeasternish, perfect for a Parula Warbler. Yesterday (21 July) was the first rain we'd had in months, and it was rainy, foggy, and overcast all day. Today was sunny, but the excess moisture on the ground made it very humid and muggy. As a matter of fact, walking down School Hill hearing Scolding Scrub Jays and smelling the damp morning earth, I really flashbacked to Archbold Biological Station. Hearing the warbler song was just too much. I almost didn't stop to find the bird, because Black-throated Gray Warbler songs have reminded me of Parulas earlier this year, but the "Florida imagery" of the whole scenario spurred me to look for the singer. Good thing I did.

1979 Ronald L. Mumme

Psaltriparus minimus

Hastings Reservation, Monterey Co. CA

FORAGING DATA

11 Aug Time: 1210 — In low branches.

Place: Next to Bunkhouse — A few spilled over

Tree: *Quercus agrifolia*, W corner Bunkhouse — into the juniper

Flocksize: 10 (a few juv.) — next to the steps

Attendants: 2 Plain Titmice

1 Black-throated Gray Warbler

28 Aug 1935, School Hill, *Q. lobata*, 20, none,

1979 Ronald L. Mumme

Picoides nuttallii
Nuttall's Woodpecker

Hastings Reservation, Monterey County, CA

20 Aug 1040, watched a ♂ Nuttalls Woodpecker feeding on Poison Oak berries, about 50 meters SE of the Finch Creek Bridge. The *Rhus* vine was loosely wrapped around the base of a Valley Oak. The woodpecker simply hung on the thin outer twigs about 3 meters off the ground, plucking about five green berries before flying off.

1979 Ronald L. Mumme

Pica nuttallii
(Yellow-billed Magpie)

Hastings Reservation, Monterey County CA

21 Aug While trying to watch woodpeckers at Blomore around 0830, a large flock of magpies began to move through. One of the birds flew down and landed on the back of a grazing ♀ Mule Deer, feeding in the open near some large valley oaks and accompanied by two fawns. The magpie stayed on the back for < 10 secs, but it definitely probed its bill into the back fur of the deer, (looking for ticks?). The deer was not at all disturbed.

1979 Ronald L. Mumme

Charadrius vociferus

San Antonio River, Hunter Liggett Military Reservation, Monterey County, California

31 March On the Hunter-Liggett wickerbill excursion with Frank, Walt + John, we found a killdeer nest on an isolated rock-gravel bed in the middle of a shallow portion of the San Antonio River. We were alerted to the nest while eating lunch on a beautiful spring day, when we saw a killdeer land on the gravel bed. It began moving very slowly and steadily (very un-killdeer-like) over the whitish rocks before settling on what turned out to be a nest. Walt + I waded out, finding 4 eggs in a shallow depression. A few tiny bits of stick were present in the bottom of the nest. When we flushed the adult bird, it first ran to another spot + sat down (nest decoy?), when we approached more closely, it started to "broken wing" display.

	~~M~~	~~/ORANGE-L BLUE~~	
378	D PINK	/L PINK-LGREEN	770530
	M	/L PINK-LGREEN	
379	D BLUE	/L PINK-LGREEN	770530
	M	/L PINK-LGREEN	
380	LGREEN-L PINK	/L PINK-LGREEN	770530
	M	/L PINK-LGREEN	

		~~M~~	~~/L BLUE~~		
326	F	M L PINK	/ORANGE-D PINK /ORANGE-D PINK	WHITE ,R	770509
327	F	B PINK-DGREEN/M DGREEN-BPK(N)/YELLOW		L BLUE,R	770212
329	F	M LGREEN-BROWN	/BROWN -LGREEN /LGREEN	PURPLE,R	770212
330	M	BLACK BLACK	/L PINK /M	LGREEN,L	770704
332	F	RED M	/B PINK-LPK(N) /RED	R RED ,L	770212
333	F	DGREEN-RED DGREEN-RED	/MAUVE /M	D BLUE,L	770427
336	F	L BLUE-D BLUE/M L BLUE-D BLUE/ORANGE		D BLUE,R	770512
337	F	DGREEN-RED(N)/DGREEN-RED(N) M	/DGREEN-RED(N)	PURPLE,L	770212
339	F	MAUVE -D BLUE/M D BLUE-MAUVE	/D BLUE-MAUVE	LGREEN,R	780611
342	F	WHITE -PURPLE/RED M	/WHITE -PURPLE	ORANGE,R	770212
343	F	LGREEN M	/D BLUE-WHITE /LGREEN		780622
374	M	ORANGE M	/ORANGE-L BLUE /ORANGE-L BLUE		780316
376	M	BLACK M	/ORANGE-L BLUE /ORANGE-L BLUE		780316
377		WHITE M	/ORANGE-L BLUE /ORANGE-L BLUE		770530

R. L. Murray

		~~M /RED -YELLOW~~		
471		D BLUE-YEL(N)/RED -YELLOW M /RED -YELLOW		780715
472		YELLOW /RED -YELLOW M /RED -YELLOW		780715
246	M	YELLOW-D PINK/M D PINK-YELLOW/L BLUE-YELLOW	ORANGE,R	771106
300	M	RED -L BLUE/YELLOW RED -L BLUE/YELLOW		771106
301	M	L PINK /DGREEN-RED M /DGREEN-RED		780517

BUCKEYE

468		DGREEN-BPK(N)/L BLUE-YELLOW M /L BLUE-YELLOW		780702
469		D BLUE-YEL(N)/L BLUE-YELLOW M /L BLUE-YELLOW		780702
372	F	WHITE -BLACK /ORANGE WHITE -BLACK /M		771111
373	M	ORANGE /D BLUE-ORANGE D BLUE-ORANGE/M		771007

P OAK HILL

316	F	LGREEN-RED /LGREEN M /LGREEN-RED	LGREEN,R	770212
324	F	ORANGE-L BLUE/RED ORANGE-L BLUE/M	D BLUE,R	770427
325	M	L BLUE-D BLUE/L BLUE-D BLUE M /L BLUE	ORANGE,R	770212

~~BLACK /MAUVE~~

BIANCA

141	F	YELLOW-ORANGE/LGREEN YELLOW-ORANGE/LGREEN		780928
251	F	M DGREEN	/LGREEN-ORANGE /LGREEN-ORANGE	780214
477	M	M RED	/YELLOW-BLACK /YELLOW-BLACK	780928
214	M	ORANGE 75 ORANGE 78	/WHITE 52 /WHITE 56	780921
303	F	L BLUE L BLUE	/ORANGE-LGREEN /ORANGE-LGREEN	780716
411	M	D BLUE M	/LGREEN /LGREEN	780716
412	M	WHITE -D BLUE/WHITE WHITE -D BLUE/M		780928
413	F	ORANGE-DGREEN/M D PINK	/ORANGE-DGREEN	780214

BLOMQUIST

436	MAUVE -RED MAUVE -BLACK	/MAUVE -BLACK /M	780514
437	M BROWN -ORANGE	/ORANGE-BROWN /ORANGE-BROWN	780707
438	L BLUE-WHITE M	/L BLUE-WHITE /L BLUE-WHITE	780514
470	MAUVE M	/RED -YELLOW / RED -YELLOW	780715

R. M.

~~B PINK LPK(N)/BLACK~~

284	M	M ORANGE	/DGREEN-ORANGE /DGREEN-ORANGE		780513

APNOLD 3

120	M	L PINK-WHITE L PINK-WHITE	/M /BLACK -GREEN		~~780704~~ 78 10 15
122	M	ORANGE NO LEG	/MAUVE		780518
128	F	YELLOW YELLOW	/D BLUE /M		780706
204	M	M L BLUE 98	/L BLUE 99 /RED -WHT -RED		780704
207	F	MAUVE MAUVE	/L PINK-RED /L PINK-RED	78 11 24	~~780706~~ 78 10 15
289	F	M ORANGE-D BLUE	/ORANGE /ORANGE		~~780706~~ 78 10 15
290	F	D BLUE-WHT(N) D BLUE-WHT(N)	/D BLUE /D BLUE	78 11 24	~~780706~~ 78 10 15

UP ARN 2

LOW ARN 2

126	M	WHITE WHITE	/D BLUE-WHITE /M		780704
439	F	YELLOW YELLOW	/RED /RED		780528
440	F	BLACK BLACK	/MAUVE /MAUVE		780528

R. L. Mu

~~BLACK /L BLUE-RED~~

423	F	LGREEN LGREEN	/M /DGREEN-LGREEN	780514
447	F	ORANGE-LGREEN ORANGE-LGREEN	/LGREEN-ORANGE /LGREEN-ORANGE	~~780707~~ 78 10 14

BIG TREE

104	M	ORANGE-BROWN ORANGE-BROWN	/ORANGE-BROWN /ORANGE-BROWN	780902
600	F			780521
403	M	ORANGE ORANGE	/M /BLACK	780902
404	F	D BLUE-RED D BLUE-RED	/D BLUE /M	780902

KEEP OUT

118	M	LGREEN LGREEN	/L BLUE /L BLUE	780716
535	F			780716

LAMBERT

114	M	L PINK L PINK	/M /L PINK	780706
559	F			780513
283	F	B PINK-LPK(N) B PINK-LPK(N)	/M /BLACK	780513

R. Muller

428	M	L PINK DGREEN-LGREEN/M	/DGREEN-LGREEN	780521
320	F	RED -LGREEN/M RED -LGREEN/BLACK -PURPLE		780521
321	M	ORANGE M	/D BLUE-YEL(N) /D BLUE-YEL(N)	780521
410	M	M WHITE -RED	/WHITE /WHITE	780521
455		M RED -D BLUE/RED	/D BLUE-RED	780729
456		YELLOW-D BLUE/M YELLOW-D BLUE/YELLOW		780729
457		LGREEN M	/ORANGE-BLACK /ORANGE-BLACK	780729
458		DGREEN-BPK(N)/M DGREEN-BPK(N)/DGREEN-BPK(N)		780729
459		ORANGE-BLACK /BLACK -ORANGE ORANGE-BLACK /BLACK -ORANGE		780729

ARNOLD 1

199	M	RED ORANGE 63	/M /WHITE	~~780911~~ 781014
266	M	M YELLOW	/BLACK /BLACK	780514
267	M	WHITE M	/D BLUE-WHT(N) /D BLUE-WHT(N)	780514
422	F	M Black	/L BLUE-RED /L BLUE-RED	~~780911~~ 781014

R. L. Murray

SCHOOL HIL

86	M	MAUVE L PINK	/MAUVE /M	~~780930~~ 781013
419	F	WHITE -RED WHITE -RED	/WHITE -RED /WHITE -RED	780708
402	M	YELLOW YELLOW	/D PINK /D PINK	780611
452		D PINK-YELLOW/M D PINK-YELLOW/D PINK-YELLOW		780618
453		LGREEN-D BLUE/LGREEN LGREEN-D BLUE/M		780618
454		BLACK BLACK	/WHITE -BLACK /WHITE -BLACK	780913

S HILL B

S HILL C

S HILL WST

BLACK OAK

426	M	BLACK BLACK	/ORANGE-WHITE /ORANGE	780521
427	F	D BLUE RED	/RED /M	780729
102	M	YELLOW WHITE	/WHITE /YELLOW	780729

R. L. Mumme

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278   M   WHITE              /M                          781002
          WHITE              /D BLUE

282   M   M                  /RED    -TAN                781002
          TAN    -RED        /TAN    -RED

386   M   DGREEN-LGN(N)/WHITE                            781002
          DGREEN-LGN(N)/M
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ROAD 3

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184   M   M                  /BLACK -WHITE               781005
          WHITE -BLACK       /BLACK -WHITE

265   F   D BLUE             /YELLOW-L BLUE              781005
          D BLUE             /YELLOW-L BLUE

 68   M   D BLUE             /                           781005
          ORANGE             /L BLUE

269   F   D BLUE-WHT(N)/WHITE                            781005
          M                  /WHITE -D BLUE

382   M   RED    -BLACK      /RED                        780806
          RED    -BLACK      /RED

383   F   YELLOW-DGREEN/YELLOW                           781005
          YELLOW-DGREEN/M

384   M   BLACK  -WHT(N)/M                               781005
          BLACK  -WHT(N)/BLACK

444       D BLUE-WHT(N)/ORANGE                           781005
          D BLUE-WHT(N)/ORANGE

445       M                  /RED                        780724
          L BLUE             /RED

446       L BLUE-RED         /RED    -L BLUE             781005
          L BLUE-RED         /RED    -L BLUE
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R. L. Mumme

133	M	MAUVE	/BLACK		781004
		MAUVE	/M		
222	M	WHITE -RED	/DGREEN	D BLUE,R	781004
		WHITE -RED	/DGREEN		
293	F	M	/ORANGE-LGREEN		781004
		WHITE	/ORANGE-LGREEN		
294	M	B PINK	/D BLUE-YELLOW		781004
		B PINK	/D BLUE-YELLOW		
295	F	RED	/D BLUE-WHT(N)		781004
		RED	/D BLUE-WHT(N)		
406	M	DGREEN-LGREEN/M			781004
		DGREEN-LGREEN/DGREEN-LGREEN			
407	M	LGREEN-BROWN	/LGREEN-BROWN		781004
		LGREEN-BROWN	/M		
408	F	L BLUE	/BLACK -YELLOW		780501
		M	/BLACK -YELLOW		
409	F	M	/D PINK		781004
		ORANGE	/D PINK		

FINCH

63	M	GREEN -BLACK	/GREEN -BLACK		781002
		GREEN -BLACK	/GREEN -BLACK		
66	M	D PINK	/L PINK		781002
		RED	/L BLUE-WHITE		
67	M	L PINK-L BLUE/M			781002
		YELLOW-RED	/GREEN -L PINK		
549	M				781002

R. L. Mumme

394	M	YELLOW YELLOW	/D BLUE-YEL(N) /D BLUE-YEL(N)	780806
395	M	BLACK -WHT(N) BLACK -WHT(N)	/M /BLACK	~~780806~~ 78 11 24
396	M	M D BLUE-RED	/RED -D BLUE /D BLUE	780705
397	F	YELLOW-BLACK YELLOW-BLACK	/YELLOW-BLACK /M	780705
463		DGREEN M	/L PINK /DGREEN-L PINK	780806
464		LGREEN-ORANGE LGREEN-ORANGE	/M /LGREEN-ORANGE	~~780806~~ 78 11 24
465		WHITE M	/ORANGE /ORANGE-WHITE	~~780705~~ 78-11-24
466		M WHITE	/BLACK -ORANGE /BLACK -ORANGE	~~780806~~ 78 11 24
467		DGREEN DGREEN	/LGREEN-DGREEN /LGREEN-DGREEN	780622

GATE

ROAD 1

354	F	BLACK BLACK	/L PINK /M	YELLOW,L	781004
547	M				781004
180	F	RED -WHITE RED -WHT -RED	/L PINK 81 /L PINK 83		780503

R. L. Mumme

Lower Hay

170	F	Necrotic Pink - White - Blue / white			780925
307	M	ORANGE M	/D PINK-ORANGE /D PINK-ORANGE	ORANGE,R	~~780925~~ 781014
309	M	DGREEN-YELLOW/DGREEN DGREEN-YELLOW/M			780625
390	M	YELLOW-BLACK /M YELLOW-BLACK /RED -BLACK			~~780925~~ 781014
391	F	LGREEN LGREEN	/WHITE /M		780831
460		MAUVE MAUVE	/RED /M		780804
461		M D BLUE-WHITE	/L BLUE-WHITE /L BLUE-WHITE		780804
462		D BLUE-WHT(N) D BLUE-WHT(N)	/RED -WHITE /RED -WHITE		780804

UPPER HAY

WESTGATE

521	M				780806
433	F	WHITE -RED WHITE -RED	/DGREEN /M		780705
258	M	B PINK-WHITE B PINK-WHITE	/ORANGE /M		780913
238	M	ORANGE-DGREEN/ORANGE ORANGE-DGREEN/ORANGE			780705
574	F				780705 781124

R. L. Mumme

1800

260	F	WHITE /D BLUE WHITE /M		780915
347	M	L PINK-D BLUE/L PINK M /L PINK-D BLUE		780419
193	F	D BLUE-L PINK/D BLUE D PINK /M		780619
476	M	BLACK /LGREEN BLACK /LGREEN	at Y	~~780915~~ 78 11 26

HAY-BLOM

247	F	WHITE -D PINK/ORANGE WHITE -D PINK/ORANGE		~~780922~~ 78 11 25
176	F	YELLOW /BLACK YELLOW /BLACK		~~780922~~ 78 11 25
171	M	ORANGE-YELLOW/RED ORANGE-YELLOW/M	NO	~~780922~~ 78 11 25
173	M	ORANGE 71 /BLACK ORANGE /M		~~780922~~ 78 11 25
448		M /WHITE -DGREEN WHITE -DGREEN/WHITE -DGREEN		780831
449		RED -BLACK /M RED -BLACK /WHITE		780922
450		L BLUE /D BLUE-L BLUE M /D BLUE-L BLUE		780922

LOW HAY

170	F	NECROTIC PINK-WHT-BLUE/WHITE		780925

R. L. Mumme

MACROBERTS

617	M				780423
191	F	L PINK M	/L BLUE-WHITE /RED		780619

Y

415	M	D BLUE-YEL(N)/YELLOW D BLUE-YEL(N)/YELLOW		WHITE ,L	780930
434	F	ORANGE-D BLUE/ORANGE ORANGE-D BLUE/ORANGE		YELLOW,L	780930

PUMP

1500

88	M	RED M	/DGREEN-YELLOW /ORANGE	R RED ,R	780923
296	M	M L BLUE	/L PINK /L PINK	YELLOW,R	780923
297	M	YELLOW-DGREEN/ORANGE ORANGE	/YELLOW-DGREEN		780923
298	M	LGREEN-DGREEN/LGREEN-YELLOW LGREEN-DGREEN/M			~~780923~~ 78 11 25
475	F	WHITE WHITE	/L PINK /L PINK		780923
441		BLACK -ORANGE/BLACK BLACK -ORANGE/BLACK			780923

R. I. Mumme

CHONGO

319	M	M DGREEN	/DGREEN /RED -LGREEN	780312
234	M	L BLUE L BLUE	/WHITE -D PINK /WHITE -D PINK	780530
252	M	D BLUE M	/YELLOW-L BLUE /YELLOW-L BLUE	780530
424	M	D BLUE-ORANGE D BLUE-ORANGE	/D BLUE-ORANGE /D BLUE-ORANGE	780530
603	F			780530
368	F	BLACK -RED BLACK -RED	/M /YELLOW	780530
369	F	WHITE WHITE	/BLACK -RED /BLACK -RED	780530
370	M	LGREEN-L PINK LGREEN-L PINK	/LGREEN /M	780530

PLAQUE

157	F	L BLUE-WHITE L BLUE-WHITE	/YELLOW /YELLOW	R RED ,R 781008
473	M	LGREEN LGREEN	/M /WHITE	780925
474		ORANGE ORANGE-D BLUE	/ORANGE /M	780922

R. L. Mumme

332	F	RED M	/8 PINK-LPK(N) /RED	R RED ,L	770212
333	F	DGREEN-RED DGREEN-RED	/MAUVE /M	D BLUE,L	770427
336	F	L BLUE-D BLUE/M L BLUE-D BLUE/ORANGE		D BLUE,R	770512
337	F	DGREEN-RED(N) M	/DGREEN-RED(N) /DGREEN-RED(N)	PURPLE,L	770212
339	F	MAUVE -D BLUE/M D BLUE-MAUVE	/D BLUE-MAUVE	LGREEN,R	780611
342	F	WHITE -PURPLE/RED M	/WHITE -PURPLE	ORANGE,R	770212
343	F	LGREEN M	/D BLUE-WHITE /LGREEN		780622
374	M	ORANGE M	/ORANGE-L BLUE /ORANGE-L BLUE		780316
376	M	BLACK M	/ORANGE-L BLUE /ORANGE-L BLUE		780316

R. L. Mumme

301	M	L PINK	/DGREEN-RED		780517
		M	/DGREEN-RED		

BUCKEYE

468		DGREEN-BPK(N)	/L BLUE-YELLOW		780702
		M	/L BLUE-YELLOW		
469		D BLUE-YEL(N)	/L BLUE-YELLOW		780702
		M	/L BLUE-YELLOW		
372	F	WHITE -BLACK	/ORANGE		771111
		WHITE -BLACK	/M		
373	M	ORANGE	/D BLUE-ORANGE		771007
		D BLUE-ORANGE	/M		

P OAK HILL

316	F	LGREEN-RED	/LGREEN	LGREEN,F	770212
		M	/LGREEN-RED		
324	F	ORANGE-L BLUE	/RED	D BLUE,R	770427
		ORANGE-L BLUE	/M		
325	M	L BLUE-D BLUE	/L BLUE-D BLUE	ORANGE,R	770212
		M	/L BLUE		
326	F	M	/ORANGE-D PINK	WHITE ,R	770509
		L PINK	/ORANGE-D PINK		
327	F	B PINK-DGREEN	/M	L BLUE,R	770212
		DGREEN-BPK(N)	/YELLOW		
329	F	M	/BROWN -LGREEN	PURPLE,R	770212
		LGREEN-BROWN	/LGREEN		
330	M	BLACK	/L PINK	LGREEN,L	770704
		BLACK	/M		

R. L. Mumme

UP ARN 2

LOW ARN 2

MMMM

R. L. Mumme

423	F	LGREEN LGREEN	/M /DGREEN-LGREEN	780514
447	F	ORANGE-LGREEN/LGREEN-ORANGE ORANGE-LGREEN/LGREEN-ORANGE		781203

BIG TREE

KEEP OUT

LAMBERT

ARNOLD 3

120	M	L PINK-WHITE L PINK-WHITE	/M /BLACK -GREEN	781015
122	M	ORANGE NO LEG	/MAUVE	780518
128	F	YELLOW YELLOW	/D BLUE /M	780706
204	M	M L BLUE 98	/L BLUE 99 /RED -WHT -RED	780704
207	F	MAUVE MAUVE	/L PINK-RED /L PINK-RED	781124
289	F	M ORANGE-D BLUE	/ORANGE /ORANGE	781015
290	F	D BLUE-WHT(N) D BLUE-WHT(N)	/D BLUE /D BLUE	781124

R. L. Mumme

BLACK OAK

427	F	D BLUE RED	/RED /M	781109
102	M	YELLOW WHITE	/WHITE /YELLOW	781109
428	M	L PINK DGREEN-LGREEN	/DGREEN-LGREEN /M	781109
321	M	ORANGE M	/D BLUE-YEL(N) /D BLUE-YEL(N)	781015
455		M RED -D BLUE	/D BLUE-RED /RED	780729
456		YELLOW-D BLUE YELLOW-D BLUE	/M /YELLOW	780729
457		LGREEN M	/ORANGE-BLACK /ORANGE-BLACK	780729
458		DGREEN-BPK(N) DGREEN-BPK(N)	/M /DGREEN-BPK(N)	780729
459		ORANGE-BLACK ORANGE-BLACK	/BLACK -ORANGE /BLACK -ORANGE	780729

ARNOLD 1

199	M	RED ORANGE 63	/M /WHITE	781109
266	M	M YELLOW	/BLACK /BLACK	780514
267	M	WHITE M	/D BLUE-WHT(N) /D BLUE-WHT(N)	780514
422	F	M BLACK	/L BLUE-RED /L BLUE-RED	781203

R. L. Mumme

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265   F   D BLUE          /YELLOW-L BLUE                    781025
          D BLUE          /YELLOW-L BLUE

 68   M   D BLUE          /                                 781025
          ORANGE          /L BLUE

269   F   D BLUE-WHT(N)/WHITE                               781025
          M               /WHITE -D BLUE

382   M   RED    -BLACK /RED                                781025
          RED    -BLACK /RED

383   F   YELLOW-DGREEN/YELLOW                              781025
          YELLOW-DGREEN/M

384   M   BLACK -WHT(N)/M                                   781025
          BLACK -WHT(N)/BLACK

444   F   D BLUE-WHT(N)/ORANGE                              781025
          D BLUE-WHT(N)/ORANGE

446   F   L BLUE-RED    /RED    -L BLUE                     781025
          L BLUE-RED    /RED    -L BLUE
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SCHOOL HIL

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 86   M   MAUVE           /MAUVE                            781119
          L PINK          /M
```

S HILL B

S HILL C

S HILL WST

R. L. Mumme

295	F	RED	/D BLUE-WHT(N)	~~781004~~
		RED	/D BLUE-WHT(N)	781211
406	M	DGREEN-LGREEN/M		781004
		DGREEN-LGREEN/DGREEN-LGREEN		
407	M	LGREEN-BROWN	/LGREEN-BROWN	781004
		LGREEN-BROWN	/M	
409	F	M	/D PINK	781004
		ORANGE	/D PINK	

FINCH

63	M	GREEN -BLACK	/GREEN -BLACK	781002
		GREEN -BLACK	/GREEN -BLACK	
66	M	D PINK	/L PINK	781127
		RED	/L BLUE-WHITE	
67	M	L PINK-L BLUE/M		781127
		YELLOW-RED	/GREEN -L PINK	
549	M			781002
278	M	WHITE	/M	781127
		WHITE	/D BLUE	781211
282	M	M	/RED -TAN	781127
		TAN -RED	/TAN -RED	
386	M	DGREEN-LGN(N)/WHITE		781127
		DGREEN-LGN(N)/M		

ROAD 3

184	M	M	/BLACK -WHITE	781025
		WHITE -BLACK	/BLACK -WHITE	

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574	F				~~781262~~ 790225
394	M	YELLOW YELLOW	/D BLUE-YEL(N) /D BLUE-YEL(N)		780806
395	M	BLACK -WHT(N) BLACK -WHT(N)	/M /BLACK		781124
465	M	WHITE M	/ORANGE /ORANGE-WHITE		781202
466	M	M WHITE	/BLACK -ORANGE /BLACK -ORANGE		781124
467	M	DGREEN DGREEN	/LGREEN-DGREEN /LGREEN-DGREEN		781202

GATE

READ 1

354	F	BLACK BLACK	/L PINK /M	YELLOW,L	781004
547	M				~~781004~~ 781211
183	M	MAUVE MAUVE	/BLACK /M		~~781004~~ 781211
222	M	WHITE -RED WHITE -RED	/DGREEN /DGREEN	D BLUE,R	~~781004~~ 781211
253	F	M WHITE	/ORANGE-LGREEN /ORANGE-LGREEN		~~781004~~ 781211
294	M	B PINK B PINK	/D BLUE-YELLOW /D BLUE-YELLOW	781217	~~781004~~

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HAY-BLOM

247	F	WHITE -D PINK/ORANGE WHITE -D PINK/ORANGE		781125
176	F	YELLOW /BLACK YELLOW /BLACK		781125
173	M	ORANGE 71 /BLACK ORANGE /M		781125

LOW HAY

170	F	NECROTIC PINK-WHT-BLUE/WHITE		780925
307	M	ORANGE /D PINK-ORANGE M /D PINK-ORANGE	ORANGE,R	781116
390	M	YELLOW-BLACK /M YELLOW-BLACK /RED -BLACK		781104
391	F	LGREEN /WHITE LGREEN /M		780831

UPPER HAY

WESTGATE

58	M	LGREEN /LGREEN M /LGREEN		~~781202~~ 790225
521	M			~~781202~~ 720225
258	M	B PINK-WHITE /ORANGE B PINK-WHITE /M		~~781202~~ 790225
238	M	ORANGE-DGREEN/ORANGE ORANGE-DGREEN/ORANGE		781202

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HNHR WICKERBILLS 4 DEC

CHONGO

PLAGUE

473	M	LGREEN	/M		~~781127~~
		LGREEN	/WHITE		781210

MACROBERTS

Y

PUMF

1500

88	M	RED	/DGREEN-YELLOW	R RED ,R	781128
		M	/ORANGE		
297	M	YELLOW-DGREEN	/ORANGE		781119
		ORANGE	/YELLOW-DGREEN		
298	M	LGREEN-DGREEN	/LGREEN-YELLOW		781125
		LGREEN-DGREEN	/M		

1800

260	F	WHITE	/D BLUE		781119
		WHITE	/M		
476	M	BLACK	/LGREEN		781126
		BLACK	/LGREEN		

R.L. Mumme
1978

Journal

HASTINGS RESERVATION, Monterey Co.

10 Sept Arrived here around noon, leaving Berkeley about 800. Birded with Bob Zink about an hour before I left at the Berkeley Marina + Emeryville Flats area. Saw my first Surf Scoters (♂ + ♀) and Black Turnstone, plus 100+ Western Gulls, a few California Gulls, Short-billed Dowitchers, Least Sandpipers, Long-billed Curlew(1) Marbled Godwit (3).

After arrival, Walt + I went to Blackdecker, where we saw the two unbanded ♂♂ Acorn Woodpeckers hanging about. Later helped Walt with insect collections.

11 Sept About 0900 drove up to the Arnold, and I watched the Arnold 1 Group from hide, seeing two banded birds plus unbanded ♂ + ♀. On the way up saw a group of Mountain Quail at the gate. Walt said they had probably come down for water. About 20 Band-tailed Pigeons seen on the Arnold. Acorn crop on Arnold, as everywhere on station, seems very poor.

Also watched at Plaque during the afternoon, Saw the three resident birds, a few unidentified intruders, plus Golden Eagle, prob. imm (white at base of tail) ~~flyin~~ flying along Buckeye Hill and harrassed by two Red-tailed Hawks. ♂ Wilson's Warbler also seen.

At Blackdecker for roosting (or lack thereof), but did hear about six Great Horned Owls around the gate area.

12 Sept This morning Walt and I explored Poison Oak Hill, including a side trip to search for the elusive Cement Springs. Heard Winter Wren and Steller's Jay around Robertson Creek. In the afternoon we strolled up to Chongo and returned with

Journal

HASTINGS RESERVATION, Monterey Co.

(12 Sept) a piece of fallen granary, for future new territory. Shelled acorns until dinner, then tried to watch roosting at Lambert, where Walt had set ambushes 11 Sept. We saw zilch.

13 Sept Watched at School Hill in the morning and a little at Plaque in the afternoon, with some acorn shelling in between. Walter + Pam made great Potato - Zuchini ~~pank~~ pancakes for supper. Watched roosting at 1800 (I saw two birds poorly), where we heard a couple of Pygmy Owls.

14 Sept Had a really fine day, despite the drudgery of vegetation sampling in the morning and acorn shelling in the afternoon. Saw my first Say's Phoebe around the labs, had a very successful watch at Haystack Blomquist (see group notes) and ~~aam~~ watched roosting again at 1800, where two birds roosted in the hole Walter had set an ambush for early in the afternoon. Perhaps we'll get lucky and bag an unbanded ♂ in the morning.

15 Sept Successful ambush completed (1800 notes) I left Hastings about 0900 and got in to Berkeley at 1215.

8 Oct Went over to see Jerre Stallcup and Stanford University, seeing numerous Acorn Woodpeckers at Stanford plus my first Heerman's Gulls along the coast west of Palo Alto.

12 Oct Left Berkeley at about 1500, Arriving at Hastings at 1830, just in time to help Walt fix his clutch pedal in his VW. After dinner, I settled down with Bio 1A Project Proposals. Ugh!

13 Oct A Basically unproductive day watch-wise (see School Hill +

Journal

Hastings Reservation, Monterey Co.

(13 Oct) (hongo notes), but I did manage to struggle through most of the Bio 1A proposals. A nice group of people from Davis came in around 2100, and they fed me some of their excellent keish.

14 Oct Watched at Lower Haystack in the morning and Arnold 1 in the afternoon (see group notes) seeing 1 Phainopepla, ♂, Golden-crowned Sparrows (4), "Red-breasted" Sapsucker, "Audubon's" Warbler. Scott called Jim Griffin, having car trouble and left word that he wouldn't be leaving UCLA for Hastings.

15 Oct Had a pretty fun watch up at Arnold 3 in the morning before returning to Berkeley at about 1830.

4 Nov Bolinas Lagoon, Mt. Tamalpais, Marin Co., California

Birding around Marin Co., saw my first White-winged Scoter (S. of Stinson Beach and Bolinas Lagoon) and 4 Black Oystercatchers at Agate Beach. Additional birds were Western Grebe (many at Stinson Beach, a few in B.L.), Horned Grebe (10, B.L.), Double-crested Cormorant (50, B.L.), Mallard (5, B.L.), Pintail (very abundant in B.L., many thousand), American Wigeon (several hundred), N. Shoveler (a few), Bufflehead (20, B.L.), Surf Scoter (200 or so), Red-breasted Merganser (1♀, B.L.), Ruddy Duck (100 or so, B.L.), Turkey Vulture, Snowy Egret, Great Egret, Great Blue Heron, Am. Coot (20), Avocet (10, B.L.) Marbled Godwit (2, B.L.), Gull spp., Acorn Woodpecker (sp. notes) Com. Raven (4, B.L. + Bolinas Ridge), Wrentit (Abundant in Chaparral), Bewicks Wren (2, Coast Strand + chaparral), Hermit

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Journal

(Bolinas Lagoon, Mt. Tamalpais Area, Marin Co., California)

(4 Nov) Thrush (1, Redwoods), Golden-crowned Kinglet (10, one flock in Redwoods on Bolinas Ridge), Ruby-crowned Kinglet (25, mostly deciduous trees + Oak Scrub), Loggerhead Shrike (1, on wire over coastal strand hills, S. Marin), Yellow-rumped Warbler (1, alders nr. Stinson Beach), White-crowned Sparrow (many), Fox Sparrow (5, in chaparral), Song Sparrow (3).

22 Nov I left Berkeley at about 1330 ~~for~~ (in the rain) to spend a nice long Thanksgiving weekend at Hastings.

tings Reservation

23 Nov Spent the morning reading Bio 1A projects, and kept Whitney (or perhaps Winnie) company up at Red House. In the afternoon I watched some at Westgate, then walked up the road all the way to Rd. 3, not seeing much. Did see a large reddish salamander crossing the road on this cool clear day, plus several others that didn't make it across the road. ♂ Townsend's Warbler seen with Bushtit flock. In the evening I finished off the Bio 1A projects.

Thanks-giving Day

24 Nov I walked up to the Arnold today, and although it was a lot of fun, it was a miserable failure bird-wise. Only nickerbills I saw up there were at Black Oak and Arnold 3. Not a peep out of Arnold 1, Bianca, Low Arnold 2. I did see Varied Thrush (new bird) plus Bobcat tracks on the road. I did see an unbanded ♀ AW at Westgate enroute ~~back~~ back to Hastings (see notes).

25 Nov Watched at Haystack-Blomquist and 1500 This afternoon. Large group of Western Bluebirds both places. Finally finished B.S. for NSF application.

Journal

HASTINGS RESERVATION, Monterey Co.

10 Dec I arrived here about 1300. Pam + Walter had gone up to the Arnold, so I walked out to Chongo for a while and "caught a few Zs." Later accompanied Walter on Yellow Pan Trap collections. Ice in some of the yellow pans, plus the horse trough, but afternoon was warm (70° F or so). It had been about 22° F one morning earlier in the week, according to Jim Griffin.

Some small shoots of green vegetation are appearing here and there, apparently prompted by recent rain. A Say's phoebe was hanging around the lab area and about ½ mile up Red Hill.

11 Dec Watched some at Road 1 and did fairly well, then helped Walt set an ambush at Blom 1. 4 birds roosted.

12 Dec Ambush failed. Walt, Jim Griffin and I visited Chews Ridge in the A.M., and I saw my first Pygmy Nuthatch in the Culter Pines there. Also saw White-breasted and heard Red-breasted Nuthatch. '77 fire has apparently created a bonanza for bark gleaners, as we heard many Downy Woodpeckers. I tried to watch at Buckeye in the P.M., but saw only one unbanded ♀. After dinner Walter and I had a really good discussion about potential aspects of AW sociobiology that could be investigated.

13 Dec Found the watch I lost in Blomquist pasture the previous AM, the left for Berkeley, arriving at 1300.

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Journal

St. Petersburg, Pinellas Co., Florida

16 Dec Clear, warm weather, light winds. I went on the St. Pete Christmas Bird Count with Glen Woolfenden, Henry Robertson, Wayne Hoffman, Tom Bancroft and Jim Rodgers, covering the Toytown Dump area, Sawgrass Lake, Bay Pines, and John's Pass. Best bird was an Eared Grebe Glen and Wayne had staked out, plus Smooth-billed Ani, Great Black-backed Gull. 1 Cooper's Hawk, about 7 Sharpies, Marsh Hawk, 2 Sharp-tailed Sparrows, Sora, King Rail. We did poorly at Sawgrass Lake, and entire count missed Yellow-bellied Sapsucker, Hermit Thrush, and Ovenbird.

18 Dec Staying with folks in Plant City, Florida, visited USF and the museum, checking out Melanerpes skins at Woodpecker clutches. No picid eggs, but did look at 26 specimens, none showing strange plumages.

20 Dec Left Plant City to visit the Florida State Museum, where I saw Bruce + Carmen Barbour. I worked through the Picid egg collection, and briefly looked at Melanerpes study skins. Had a pleasant stay with Bruce and Carmen for the night, and returned to Plant City around noon on the 21st.

23 Dec North Pinellas Co., Florida -- Partly cloudy, warm. On the N. Pinellas CBC with Glen Woolfenden, Wayne Hoffman, and Stu Santos, covering the Courtney Campbell Causeway, Clearwater Christian College, Alligator Lake, and Phillipe Park area. Best Birds were Am. Redstart, N. Parula, Am. Bittern, Cedar Waxwing, Reddish Egret, Long-billed Marsh Wren;

Journal

FLORIDA, Hillsborough County, Tampa

30 Dec On the Tampa Christmas Bird Count with Ed Caldwell, John Post, Stu Santos, and Susan Cox. We covered the USF Eco Area, USF Golf Course, ~~and~~ Fletcher Ave., and what was left of the sparrow fields around Greco JHS. We did not do well, as the wind was very strong in the late morning on. Partly cloudy + warm. The only worthwhile bird we saw was a Whip-poor-will, which we flushed at the border of Buck Hammock. It flew to a horizontal limb of an oak and perched, allowing us to study it leisurely for several minutes. Other good birds seen were short-billed Marsh Wren, Bachman's Sparrow, Grasshopper Sparrow, Hermit Thrush.

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Melanerpes formicivorus

Non-Hastings notes

4 Nov Bolinas Ridge Trail, 1 mile NW of Fairfax Bolinas Rd, Marin Co., California. Clear, mild weather. 1315

I Happened along a group of Acorn Woodpeckers in a second-growth redwood area along the Bolinas Ridge. At least 4 birds seemed to be in the group, and three of them were briefly perched together at the dead tip of a Redwood (or Douglas Fir). The dead wood of the tip was a rather dilapidated granary, and another tree top nearby was similar. I saw no acorns in the granary, although Tanoak was abundant in the understory, and a fair number of Tanoak acorns could be found on the ground. I did see a few flycatching sortees. Couldn't see enough to sex the birds I saw.

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Woodpecker Clutch Size Data

20 Dec **Colaptes auratus** — **Florida State Museum**

Mus. #	Locality	Date	Clutch size
56833	Warwick, Rhode Island	21 May 1887	7
56834	Bristol, Rhode Island	20 May 1884	8
56835	Providence, Rhode Island	13 June 1883	6 *
	* 5 eggs, but 6 listed on card.		
56893	Burrillville, Rhode Island	20 May 1906	7
56894	North Kingston, Rhode Island	19 May 1915	8
89309	Alachua Co., Florida	29 May 1940	5 *
	* One runt. 20 x 17 mm. others about 25 x 20 mm		
89316	No locality, date, other than *C. a. auratus*		6
89308	near El Rosario, Lower California, Mexico (*C. chrysoides brunnescens*)	10 April 1923	5
89305	near San Simon, Lower California Mexico (*C. chrysoides brunnescens*)	28 March 1939	5
620515	Chihuahua, Mexico (*C. chrysoides mearnsi*)	19 May 1895	4
56828	Warwick, Rhode Island	21 May 1894	9
56829	Wickford, Rhode Island	2 June 1888	9
56830	E. Providence, Rhode Island	21 May 1887	10
56831	Cranston, Rhode Island	10 June 1887	8
56832	Cranston, Rhode Island	27 May 1884	7
89317	Levy Co., Florida	6 April 1938	5
53043	Bayview, Pinellas Co., Florida	17 April 1927	4
53051	Seekonk, Massachusetts	21 May 1903	7
53519	Cranston, Rhode Island	17 May 1912	9
53521	Prudence, Rhode Island	20 May 1912	8
56826	Ambler, Pennsylvania	27 May 1890	8 *
	* 1 Runt 19 x 15 mm, others about 26 x 21 mm		

Florida State Museum

20 Dec Woodpecker Clutch Data -- *Colaptes auratus* (continued)

Mus #	Locality	Date	Clutch size
56827	Bristol, Rhode Island	24 May 1891	9
58712	Near Camp Lowell, Arizona (*C. chrysoides mearnsi*)	9 May 1884	4
56895	Tucson, Arizona (*C. chrysoides mearnsi*)	14 April 1884	2
51809	Cranston, Rhode Island	25 May 1902	7
51810	Johnston, Rhode Island	17 May 1903	8
52516	Little Falls, New York	17 May 1889	7
52501	Clearwater, Pinellas Co., Florida	26 April 1928	4
1172	Seven Oaks, Pinellas Co., Florida	5 May 1903	2
16137	Hartford Co, Connecticut	1 June 1900	6
16450	Hattey, Quebec, Canada	18 May 1913	7
47901	Gainesville, Alachua Co., Florida	2 June 1930	5
1173	San Bernardino, California (*C. cafer collaris*)	23 May 1891	8
1603	San Francisco, California	28 April 1892	6
16191	Tacoma, Washington	23 May 1912	7
12827	Dayton, Oregon	1 June 1896	7
	~~(eggs not seen. Missing from collection?)~~		OK, found later
52513	Berkeley, Alameda Co., California (seven on card, six eggs in box)	26 May 1884	7*
56892	San Bernardino, California	23 April 1882	8*
	*one runt, 22 X 16 mm. Others about 29 X 20 mm.		
52514	Salem, Oregon	7 May 1888	7

Florida State Museum
20 Dec Woodpecker Clutch Data

Mus #	Locality	Date	Clutch size
		Dryocopus pileatus	
61711	London, Arkansas	6 May 1924	3
16381	Gravenhurst, Muskoka, Canada	20 May 1897	4 *
	*(note on card "one taken out", ~~three~~ four eggs present)		
89313	Cardarelle, Yell Co., Arkansas	16 April 1932	4
89314	Mount George, Yell Co., Arkansas	17 April 1930	4
61021	Huntington Co., Pennsylvania	17 May 1921	4
53107	Lancaster, New Hampshire	10 May 1911	3
89315	Dover, Arkansas	21 April 1933	4
75898	Duval Co., Florida	13 April 1931	4
		Melanerpes erythrocephalus	
1168	Marshalltown, Iowa	15 June 1886	5
56840	Minneapolis, Minnesota	?	4
56841	Niagara Falls, Ontario	26 May 1889	4
89312	"Florida" (?)	11 June 1938	5
		Melanerpes formicivorus	
52510	College Park, Santa Rosa Co., California	6 May 1891	6
62863	Nachoguero Valley, Lower California	10 May 1926	9 *
	(*M. f. martirensis*) (one near runt, 20x17 mm, others ≅ 24x19)		
		Melanerpes lewis	
1169	Pueblo Co., Colorado	10 June 1895	4
56891	Estes Park, Colorado	5 June 1887	7
52518	Estes Park, Colorado	2 June 1887	6
	M. erythrocephalus addendum		
75994	Davidson Co., Tennessee	13 May 1924	5
	M. formicivorus addendum		
58711	Los Gatos, California	15 April 1889	6

Florida State Museum

20 Dec Woodpecker Clutch Data

Mus #	Locality	Date	Clutch size
		Melanerpes carolinus	
52492	Pinellas Co., Florida	13 May 1926	4
1170	Near Micanopy, Florida	12 June 1910	5
16367	Lake Okeechobee, Florida	15 May 1911	1
56838	Lee County, Texas	20 April 1886	5
53050	Pinellas Co., Florida	2 May 1930	3
53042	Pinellas Co., Florida	21 April 1926	4
52530	Marshall Co., Illinois	18 May 1893	4
		Melanerpes aurifrons	
58710	Corpus Christi, Texas	5 May 1886	5
58709	Camargo, Mexico	24 May 1890	4
52512	Brownsville, Texas	16 April 1893	6
1600	Camargo, Mexico	7 June 1891	4 *
	* Only three eggs in box		
1171	Brownsville, Texas	15 May 1902	5
		Melanerpes uropygialis	
56839	"Camp Lowell"	14 May 1884	4
64467	Near San Fernando, Baja California	22 April 1933	5
52511	Tucson, Arizona	25 April 1884	5
		Sphyrapicus varius varius	
16279	N. of Toronto, Canada	5 June 1897	2
52527	Goodrich, Michigan	18 May 1885	5
		S. v. nuchalis	
52531	Larimer Co., Colorado	10 June 1888	4
1167	Estes Park, Larimer Co., Colorado	8 June 1903	5
16340	Rouse Junction, Colorado	9 June 1897	2
		S. v. ruber	
52528	Dayton, Oregon	25 May 1892	5

Florida State Museum
20 Dec Woodpecker Clutch Data

Mus #	Locality	Date	Clutch size
		Sphyrapicus thyroideus	
16365	Pueblo, Colorado	22 May 1897	2
52529	Boulder Co., Colorado	6 June 1887	5
		Picoides villosus	
53044	Burrillville, Rhode Island	18 May 1924	4
52496	Glocester, Rhode Island	7 June 1924	4
52505	Lance-au-Loup, Labrador	27 May 1899	5
52506	Monroe County, Michigan	10 May 1889	4
52523	Salem, Oregon	17 April 1888	4
53516	Burrillville, Rhode Island	26 May 1925	4
53522	Smithfield, Rhode Island	8 June 1907	4
56817	West Greenich, Rhode Island	16 May 1887	4
56818	Glocester, Rhode Island	5 June 1919	3
56819	Rehoboth, Massachusetts	30 April 1905	5
61139	Mono Co., California	6 June 1931	4
61864	Alpine Valley, Sonora Co., California	2 May 1920	5
61865	Klamath Falls, Oregon	17 May 1930	5
89311	near Summit, Placer Co., California	22 May 1919	4
1162	E. Dubuque, Davic Co., Illinois	2 June 1898	4 *
	* eggs missing from collection		
16149	Near Pescadero, California	20 May 1900	3
16150	Rice Lake, Ontario, Canada	9 June 1902	2
52524	Clay Springs, Orange Co., Florida	23 April 1877	3
~~52821~~	~~Cranston, Rhode Island~~	~~5 June 1899~~	~~5~~

Delete: Downy eggs

Florida State Museum

20 Dec Woodpecker Clutch Data

Mus #	Locality	Date	Clutch Size
		Picoides pubescens	
56821	Cranston, Rhode Island	5 June 1899	5
52495	Glocester, Rhode Island	9 June 1924	5
52949	Iowa City, Iowa	8 May 1882	5
53340	Cranston, Rhode Island	14 June 1891	4
56822	Cranston, Rhode Island	2 June 1904	5
56823	Johnston, Rhode Island	30 May 1901	5
56824	Attleboro, Massachusetts	22 May 1898	6
56825	Berkeley, Massachusetts	30 May 1885	6
56836	Salem, Oregon	4 May 1888	5*
	* (only four eggs seen)		
61020	Ventura Co., California	25 April 1928	5
56896	Warwick, Rhode Island	6 June 1901	5
61019	"Northern Alberta"	25 June 1924	5
58637	Salem, Oregon	11 May 1888	4
52948	Navasota, Texas	16 April 1905	4
1597	Yates Co., New York	19 May 1895	1 (?)
1163	Seven Oaks, Pinellas Co., Florida	4 May 1906	4
		Picoides scalaris	
1165	Brownsville, Texas	8 April 1902	6
64468	S. end Concepcion Bay, Baja Calif.	30 April 1933	5
56837	Comal Co., Texas	13 April 1880	3
89306	Near El Rosario, Lower California, Mex.	18 May 1925	5
52532	Comal Co., Texas	4 May 1884	4

Florida State Museum
20 Dec Woodpecker Clutch Data

Mus #	Locality	Date	Clutch Size
		Picoides borealis	
53041	Dellwood, Pinellas Co., Florida	9 May 1926	5
1164	Near Largo, Pinellas Co., Florida	1 May 1905	3 *
	* (2 eggs seen)		
		Picoides nuttalli	
52928	N. Hollywood, California	8 May 1915	4
52521	Nuevo, San Diego Co., California	3 May 1888	5
1166	Cottonwood, California	14 May 1890	4
		Picoides albolarvatus	
52522	Blue Canon, Placer Co., California	25 May 1881	7
89307	San Bernardino Mtns, W. of Big Bear, CA.	2 June 1935	4
52929	Fresno Co., California	25 May 1929	5
		Picoides arcticus	
52950	Bloomfield, Vermont	8 June 1885	3
52520	Lance-au-Loup, Labrador	26 May 1899	5
		Picoides tridactylus	
89310	Near Belvedere, Alberta, Canada	4 June 1926	3
52526	Lance-Au-Loup, Labrador	26 May 1899	4
		Campephilus principalis	
52670	Oyster Creek, Texas	11 April 1885	4

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WOODPECKER STUDY SKINS, *Melanerpes* (*sensu latu*)

University of South Florida Museum -- 18 Dec 1978

18 Dec *Melanerpes erythrocephalus* -- 12 specimens, (8 ad, 4 juv.)

none irregular.

Melanerpes carolinus -- 10 specimens, (7 ad, 3 juv)

none irregular

Melanerpes formicivorus -- 3 specimens (2 ad, 1 juv)

none irregular

Melanerpes lewis -- 1 ad. (not irregular)

20 Dec *Florida State Museum, Gainesville*

Melanerpes formicivorus -- 12 specimens (all adult) none irregular

Melanerpes erythrocephalus -- 38 specimens (27 ad, 11 imm)

none irregular

Melanerpes lewis -- 4 specimens, none irregular

~~[illegible]~~ *Melanerpes carolinus* -- 92 specimens, none irregular

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Melanerpes formicivorus
General Notes

14 Dec At Hastings on 12 Dec, Walt and I had a pretty interesting after-dinner discussion on Acorn Woodpecker sociobiology, particularly on aspects that I might be able to study. I mentioned some of my ideas on intra-group behavior, perhaps ~~and~~ attempting to measure the relative contributions of group members to "group welfare." I think I could identify seven areas that could be pursued.

① Contributions to Incubation, Brooding, and Feeding of nestlings -- Walter says he has some data on this, but not enough. There is a lot of variation involved, and what he has is "almost uninterpretable."

② Predator defense + dissuation -- Walter has seen AW mobbing great horned owls at dusk. Experiments with stuffed owls might be informative. As for Accipiters or snakes, Cardboard cutouts like Bruce Barbour used would be possible, but probably much more difficult, in the former case, and snakes are such a minor predator, Walter thinks them unimportant. Perhaps stuffed mammals at nest cavity? Ask Walt.

③ Contributions to Acorn Storage -- Again, walter has some data, but screwy. In some cases juveniles store just as much as adults. Worth investigating

④ Contributions to granary construction/maintenance, roost/nesthole construction/maintenance -- Happens so rarely and infrequently, might be too difficult to do. I didn't discuss this with walter, but I should mention this next time we talk.

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Melanerpes formicivorus

General Notes

(14 Dec) (5) Contributions to intraspecific territorial defense -- Walter did some experiments with Junior (as a juv.) and thought that younger birds defended more. Certainly a fruitful area for further consideration. Walt recommended caged birds hoisted up in granary, although stuffed birds showing some kind of movement might also do the trick. Experiments using ♂♂, ♀♀, or juveniles at various times of the annual cycle might be interesting. Difficulty will lie in recording responses clearly and systematically.

(6) Dominance hierarchy -- Experiments like the one MacRoberts did, with artificial chunks of granary laced with acorns, might be interesting.

(7) Time activity budgets -- Again Walter has some data but needs more. Analysis of budgets for birds of different group status might be fun.

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Buckeye Hastings Reservation

12 Dec Start watch about 1415 (lost watch today).

About 1600. Finally an unbanded ♀, but nobody else.

Roughly 350 acorns in granary. end approx. 1630.

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Chongo — Hastings Reservation

13 Oct 1600 Start watch. Not likely to see anybody, no acorns in Blue Oak Granary, Nobody seen here since May. 1700 Suspicion confirmed. No sign of anybody. I'll try a bit of exploring up Red Hill. 1745 Nice pleasant walk up to the crest of Red Hill, but total failure as far as seeing any acorn woodpeckers.

10 Dec For some reason I walked up here and watched by the blind for about an hour, 1430-1530. No birds, no sign of any activity at granary.

R. L. Mumme
1978

Melanerpes formicivorus

Plaque — Hastings Reservation

11 Sept

1530 watch starts

1545 Nothing yet. Birds had been extremely active this morning. Much chasing of Intruders (about 2-4) and Scrub Jays. Valley Oak by Upper Barn has many acorns, and seems to be big attraction. Also acorns, although probably fewer, in Valley Oak on eastern edge of corral, near barn. *Spermophilus beecheyi* seen in second tree (after acorn?).

1600 Scrub Jay harvests acorn in first Oak. no sign of AW.

1605 Golden Eagle! flies along crest of Buckeye Hill, chased by two Red-tailed Hawks

1620 Ad ♂ in Valley Oak #1, couldn't see bands

1625 Intraspecific chase, intruder chased towards Red Hill.

1640 Wilson's Warber, 4 Lesser Goldfinches in Riparian growth next to upper barn.

1720 Ad ♂ lG/M and Ad ♀ lB-W/Y (473+ 157) seen together in Plaque oak, waka called. ♀ ate acorn. ♀ with Red Right wing streamer

1735 Another chase up Buckeye Hill. Couldn't ID participants.

1739 ♀ 157 chases Scrub Jay

1800 Juv. 474 O-DB/M finally seen, being mildly chased around large Oak north of the Plaque Oak. Both ♂ + ♀ seemed to chase the 1st year bird. Saw O/O on R Leg. Eye quite white.

1810 Juv + ♂ combine to chase jay. Juvenile later tolerated.

1815 end watch

13 Sept

1355 Start watch 1400 *Accipiter cooperi* soars by. All quiet. Ad ♂ #473 L. Green/White seen at 1410. He harvests acorn, flies to large Valley Oak northeast of Plaque tree. Joined by ♀

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Plaque — Hastings Reservation

(13 Sept) #157 (L. Blue-white/Yellow, Right Red wing streamer) and juv.
#474 Orange - D. Blue/Silver. ♂ works part of acorn, eats, the ♀ begins to work on acorn, ♂ leaves. I saw no intruders or intra- or interspecific chases during this watch, despite numerous Scrub Jays and a few *Spermophilus* in Valley Oaks. End 1500.

10 Dec 1330 ♂ L. Green/White working acorns in granary.

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1500 Hastings Reservation

25 Nov Start watch here at 1530. ♂ # 298 L Green + D Green / L Green Yellow, L Green - D Green / metal, seen immediately. Fair number of acorns left, but absolutely no sign that anybody else is around. ♂ chases Nuthatches from granary. Lots of W. Blue birds around. Karrits emphatically for a few minutes, no response. Where is everybody? end watch 1630.

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1800 Hastings Reservation

14 Sept Arrived around 1920 to watch roosting in the hole where Walt had set ambush earlier in the day. Two birds came fairly early, still light enough to see that the first bird in was ♂, second unknown. After both had entered, one bird peered out of the hole for a few minutes on two separate occasions.

15 Sept A successful ambush. The ♂ was christened #476 Black/Light Green, Black/Light Green. ♀ in hole was #260 White/Dark Blue, White/Metal.

26 Nov ♂ #476 Black/L. Green seen foraging in locusts around barn, in 'r territory, about 1000. Then seen to fly SW down valley, toward 1800. Another AW was seen in the same tree minutes earlier, before it too flew toward 1800. Didn't see bands, but I suspect ♀ #260. One other AW seen briefly here, some aggression. Don't know what the story is.

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Melanerpes formicivorus

Haystack - Blomquist — Hastings Reservation

14 Sept 1650 start watch Many new green acorns in storage holes, birds very active storing. Yellow - Black ♀ #176 and Orange-Black Orange - Metal ♂ #173 seen storing. Also White - D. Pink / Orange ♀ #247. Coopers' Hawk at 1708. Holy Bananas!!! I've been sitting next to a leg with Black / L. Green Bands, Must have been #451, Juvenile. Hawk kill, perhaps? Remains about 30 m SE of Telephone Pole nr. main granary, out in open ground. Feathers, leg is all.

A quick guess of stored acorns about 300 +. Also seems to be storing in tree further west. Will investigate 1725. Perhaps I am mistaken. No can find stores in valley oaks west of granary. Source of acorns also uncertain, but definitely from down the hill to the northeast. Valley Oak probably, but could be Blue Oak Acorns.

1735 No other birds seen, but certainly there were at least four from this group flying around, perhaps even 5.

1745 Yahoo! ♂ Orange - Yellow / Red, Orange - Yellow Metal #171 seen. Three fledglings (not counting ~~the~~ Black - Light Green) only birds not seen. End extremely productive watch at 1750.

25 Nov Start watch 1230. Some acorns left in granary. 1305 2 ad ♀, #247 White - D Pink / orange and #176 Yellow / Black in granary tree, ♂ ~~[illegible]~~ #173 also seen, drank sap from well of Valley oak. End 1500.

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Lower Haystack — Hastings Reservation

14 Oct Start watch from blind 0800 ♂ Orange Right Wing Streamer (#307?) seen at granary. Plus other ♂ bird 0815 Phainopepla in granary. 0855 Nuttall's Woodpecker drumming on 2° granary. "Red-breasted" Sapsucker at 0905. 1000 Things are incredibly dull. Only wing streamered ♂ prevalent, other bird dissappeared. Never did get bands, but I briefly read left leg as orange / black or yellow / Dark Green, something of that nature. Doesn't fit anything on the field list. Orange streamered ♂ doing a lot of flycatching, but nobody else around granaries. 1025 Finally see M/D Pink-Orange of ♂, confirms #307. 1040 That "other" ♂ reappeared, again showed me a left leg band combo, then flew north across fence to Blomquist property. Perhaps that's where others are? 1130 Finally I confirm ♂ 390 Yellow-Black/M, Yellow-Black / Red-Black flycatching NW of granary. Still no other birds seen. End watch 1145.

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[redacted] Westgate — Hastings Reservation

23 Nov Start watch 1215. Strange things here. One bird, perhaps a ♀, sitting in cavity of sycamore with head out. One ♂ seen, but left leg (yellow-red/) or (white-red/) or something similar didn't match with any Rd. 1 ♂♂. About 4 birds seen flying around. 1230. Bird in cavity definitely ♀. 1235. Now a ♂ in cavity (nest relief?) I didn't see exchange. Weather cool, clear, shouldn't be a reason for cavity dwelling. 1245 Cavity vacated. Two additional ♂♂ seen, but ~~left~~ right leg (first read) also didn't match. White-dark Blue (N)/M and Metal/Black-Red Colors might be slightly different, but I was certain of pattern. 1310. Idiot! I just realized that I'm watching Westgate Birds. #395 ♂ Black-White (N)/Metal, and perhaps #466 Metal/Black-Orange (1st year bird). ~~[illegible]~~ Probably was since other leg I redd as white/Black-Red (actuully white/Black-Orange. Definite ♂. Also probably #465 ~~[illegible]~~ first year White/Orange (I read as White/Red). Seemed to be ♂, too, ~~[illegible]~~ but was perhaps still in juvenile plumage. End for a while 1330. Start again 1600. All three definitely seen, but babies looking like ♂♂, not positive. ♂ #395 pecked juv #466 twice at granary. At least 4 birds around, one unknown ♀. End 1640.

24 Nov Passing by 1600, 4 birds (3 ad, 1 juv) on tip of sycamore. Thought I saw at least 1 ♀ among them. I'll take a look. No bands ♀ (#574?) at granary. End 1640

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Pipeline (Blackdecker) Hastings Reservation

10 Sept 1400 Arrived with Walt, 2 ♂♂ hanging around sycamore with artificial granary, set up about Sept 1.

11 Sept 1300 No one here in passing

1920 walked up from gate off 61b to Arnold, saw 2 ♂♂ together on sycamore. One had acorn in bill. I may have startled them, as both flew southeast across the road. 1930 Pounding noises in direction birds flew 1940 Karrit-cats behind (south) of me, about 50-100 meters. 1950 Nobody roosted in hole of sycamore. Too bad.

14 Sept 1500 Nobody in passing.

15 Sept 0730 Nobody in passing.

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Road 1 Hastings Reservation

11 Dec Start watch from blind 1010. ♂ #183 Mauve / Black at Granary 1015. Also ♂#222 White-Red/D Green (R, D Blue), ♀ #293 M/Orange-L Green, white/Orange-L Green, ♂ 294 B Pink / D Blue-Yellow, ♂ 547 unbanded. Also saw a Finch bird, ♂ # 278 White/Metal, flycatching towards the creek area. 1220 ♀ 295 Red/ D Blue-White (N) briefly in granary tree. End watch 1300

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School Hill — Hastings Reservation

13 Sept 0915 Started watch from blind. Only two birds prevalent. Ad. ♂ 86 Mauve/Mauve, Light Pink/Metal, and juv. 454 Black/White-Black. I didn't even get the impression that there might be other birds around. Little in the way of intruder or Scrub Jay chases. A few acorns seen in Valley Oaks, but not many. Two birds spent most of the time flycatching, although I did see one carrying an acorn toward the granary tree. Accipiter cooperi seen near end of watch 1145.

13 Oct Arrived 0800, seeing what appears to be L. Pink/metal ♂ #86 on main hawking perch of Valley Oak granary. In blind at 0820, only L Pink/Metal ♂ #86 seen. Chases Scrub Jay at 0835, again at 0845, this one by flying from Hawking perch to tree at SW corner of exclosure. Then extracts old acorn (?) (sure looked old, I open cotyledon of Q. agrifolia) and eats. Pulled half of acorn from open stub in Valley Oak next (west) to main flycatch tree. 0952, another Scrub Jay chase, to SW corner again.

Son-of-a gun, 0905 an unbanded bird (♀ I think, but unsure) briefly landed in #86 tree, not chased (#86 seemed to give way almost, then continued on to the south. Bird looked very sleeked.

0925 Sorry gang, but maybe that bird was just an intruder. It flew to the south and kept on going. Sure looked like it owned the place for a moment, though.

0930 About 25 Cedar Waxwings flying around. Still only ♂ #86. This is getting dull.

1035 Things are definitely starting to suggest that #86 ♂ is by himself. I haven't heard a waka or a

Melanerpes formicivorus

School Hill Hastings Reservation

(13 Oct) Karrit-cut since I've been up here. The lone ♂ has been flycatching almost the entire time. I haven't seen him harvest or store a single acorn. Of course, there doesn't seem to be any acorns for him to harvest. As for the other five birds in the group, I can't imagine where they might be. I walked up and around the Hill area, seeing zilch. Lots of Cedar Waxwings, and lots of Mistletoe up here, but most of the waxwings were flycatching.
1050 I've had enough! Going to check stores.
1100 Well, I take a little of the above back. Roughly 100 stored acorns, But since I'm not familar with their granary areas, I could have easily missed many more. Turkey retrix under granary. 1115 So long!

14 Oct Tried to watch roosting here with Walt, but saw no birds. Weird things are happening here.

11 Dec Start watch 1440. Some acorns still in granary, but couldn't be more than 50 or so. ♂ #86 seen, That's all. end 1530.

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Black Oak — Hastings Reservation

24 Nov Start watch 1035. Three birds seen at granary, flushed as I moved into position. 1110. Zilch! I'm leaving.
1335 I'm trying again 1350, ad ♂ seen, didn't get bands
1630 Struck out again. At least 3 birds here, though.

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Melanerpes formicivorus

Arnold 1 Hastings Reservation

11 Sept 0940 watch starts. 0945 Unbanded ♀ at granary areas of valley Oak, leaves 0950. Unbanded ♂ arrives 0951, extracts acorn from storage limb. 1025 banded bird finally shows, ♂ #199 Red/Metal, Orange/White, extracts acorn from storage limb, eats

1040 ♂ intruder lands briefly in valley oak. Wasn't able to read bands, but split light-dark, light-dark on one leg seen clearly. Came from south, then continued NE down hill.

1055 Unbanded ♀ mildly chased by ♂ #199. ♀ #422 also seen, Metal / Light Blue-Red.

1115 Unidentified WP chases Nuthatch from granary areas. Nuthatch goes to another part of valley oak, then flies off at 1119. Returns at 1121, chased again at 1122. Watch ends 1130.

14 Oct 1530 Watching from Hide. One AW chased Scrub Jay from granary, then flew off. Little in the way of stores. Face flies incredibly thick. Could be a grim watch.

1550 ♀ at granary. Quick look at left leg. Perhaps unbanded?

1610 ♀ Juv 447 Or-L Green / L Green-Orange Definite ♀ plumage took half of acorn from ♂ 199 Orange (63)/White. I even saw the 63!! ♂ allowed juv. ♀ to take acorn half. #447 color was tough for me, but I'm pretty sure I got it right. Orange L. Green combos on both legs. Certain ♀!!! 1655 Large flock of Western Bluebirds.

1700 ♀ #422 Black / L Blue-Red at granary tree, eating acorn at horizontal anvil. ±100 stored acorns. End watch 1745

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Arnold 3 Hastings Reservation

15 Oct Start watch from blind 0910. 1010, Finally, ♀ #290 Dark Blue-white (N)/Dark Blue appears, works acorn in Valley Oak NW of granary. 1030 At least 3 birds around, second ♀ seen, probably (but not sure) Mauve/L Pink-Red. All flycatching, not at granary. 1035 2 ♂♂ seen at distance, flycatching together. Couldn't get bands. 1050 Finally confirm ♀ #207 Mauve/L Pink-Red. Chased (along with ♀ #290) an unbanded(?) ♀ intruder. Intruder had very brownish primaries. Don't think it was banded, but not sure. 1100 added ♂ #120 L Pink-white/M and ♀ #289 Metal/Orange, Orange D Blue/Orange. 1145 Almost nonstop flycatching. Nobody has visited the granary. For the last several minutes I've heard a lot of what I guess were chatter calls. Wasn't able to see the source. End 1155 Several Hundred acorns in granary.

24 Nov Start watch 1130. 3 birds seen flying away as I approached. Still a good many acorns in granary. 1145 ♀ Ad, perhaps #207 Mauve/L Pink Red, from what I could see of bands. 1150 ♀ #290 D Blue-white (N)/D Blue shows; eats acorn. 1255 Dullsville. 3 bird seen on far side of canyon. End watch

Journal

CALIFORNIA, Contra Costa and Sutter Counties

6 Jan David Winkler led me on an exceptional Birding extravaganza. We started early in the AM in some flooded fields in Contra Costa Co., where I saw 1 Whistling Swan, plus several Glaucous-winged and Thayer's Gulls. Herrings, California, and Ring-billed Gulls were also present, so I got a lot of good practice with gulls. Thayer's have a more rounded head and darker eye than Herring Gulls. Cinnamon Teal (1 ♂, 3 ♀♀) were also present. Also saw Dunlin, Long-billed Dowitcher, Mallard, Pintail, Shoveler, Water Pipit, Western Meadowlark, Savannah Sparrow, plus an imm. Broad-winged Hawk nearby.

We then headed north up the Central Valley, and after stopping at Dave's folks' house, we drove up toward Gray Lodge NWR. Enroute saw incredible numbers of Red-tailed Hawks (very abundant!) and kestrels, plus 1 White-tailed Kite. Around Sutter Buttes we saw about 30 Lewis Woodpeckers (very gregarious, "groups" of 5 and 10 in very localized areas. Very slow, crow-like flight, flycatching) plus one Prairie Falcon soaring with Red-tails and Turkey Vultures.

Gray Lodge was incredible. About 150,000 Snow Geese, 10,000 Ross' Geese, 3 "Blue Geese" 15 White-fronted Geese, 75 Canada Geese (plus about 5,000 that flew overhead near Sutter

Journal

CALIFORNIA, Sutter Co., Gray Lodge NWR

(6 Jan) Buttes). Very large numbers of Pintail, Wigeon, Shoveler, plus 4 more Cinnamon Teal, 4 Ring-necked Ducks, 50 Long-billed Dowitcher, 4 Common Gallinule, 1 Virginia Rail, 200 Sandhill Crane, 10 Whistling Swans, Am Coots., 2 Am. Bitterns, 3 Great Egrets, 3 Great Blue Herons, 1 White-tailed Kite, 1 Sora.

27 Jan CALIFORNIA, Alameda Co. Berkeley Aquatic Park --

0800-1200, clear, 40-55° F., winds 5-10 mph. Third Zoo 107A Field Trip. I saw two life birds, three Mew Gulls plus about 50 Greater Scaup. Also saw Com. Goldeneye (25), Bufflehead (20) Canvasback (5) Pintail (7), Mallard (2), Ruddy Duck (50, 90% ♂) Red-breasted Merganser (3 ♀♀), Greater Yellowlegs (3), Am. Avocet (40), Snowy Egret (20), Black-crowned Night Heron (15), Great Egret (3), Long-billed Dowitcher (30).

17-20 Feb CALIFORNIA, Monterey Co. Hastings Reservation

Had a very pleasant weekend at HNHR, including a party at Red House with Walt, Pam, Peter + Lois Meyers, Jim + Carol Patton, John + Betty Davis, Dave Winkler + Christine, Paul Sherman, et al. Didn't see much Acorn Woodpecker wise, but on 20 Feb we did walk up Poison Oak Hill to find all granaries empty, and no birds present. Grass was beginning to green up (lots of young shoots) a few shooting stars on PO Hill, a few trickles of water in the creeks. Many Hutton's Vireos around, one Varied Thrush 1 Say's Phoebe, ≥20 Cedar Waxwings, 10 W. Bluebirds, 5 Violet-Green Swallows.

Journal

Hastings Natural History Reservation Monterey Co. California

23-25 Feb A very good and productive weekend down at Hastings, which included an Acorn Woodpecker bullsession with Walt, Frank, John Davis and I. I think I got pretty good vibes from all concerned regarding my tentative research plans (within-group behavior and division of labor, relative contributions of group members to group activities, etc. To top it off, I had a very interesting watch at Westgate on 25 Feb (see westgate notes) in which I saw a fair amount of dominance interactions (mostly submissive begging calls). Very encouraging!

Pam + Walt gave a very enjoyable dinner party for Frank + Dorothy, and that was great fun.

I saw some unusual behavior in Red-shouldered Hawks (see sp. acct.). Rufous-sided Towhees singing a fair amount, creeks flowing about 1-2 cfs, willows beginning to bud out, etc.

9 March Pt. Pinole Regional Park Contra Costa Co. CA

A 200 107A trip here on a cool, foggy, overcast day. Allen's Hummingbirds were everywhere, and we saw a couple of nice pendulum display flights. Also found a hummer nest w/ 2 young, about 6 m up in a Eucalyptus at fork of a bare, horizontal branch. Tree about 25 cm diameter, near firebreak clearing. Couldn't tell the species involved, and I heard a couple of Anna's around to give me pause. Harvest Mouse, 1 dead Vole, Ringneck Snake, S. Alligator Lizard, Arboreal Salamander, Batrachoseps.

Journal

Strawberry Canyon, Berkeley, Alameda Co. CA

17 Mar A partly cloudy, cool day following rain. I led a Zoo 107A group up the main fire trail, and didn't see too much except 5-10 singing ♂ Orange-crowned Warblers. About 20 Song Sparrows, many singing ♂♂, two Fox Sparrows, singing Ruby-crowned Kinglets (2), 1 Brown Creeper, 1 Red-breasted Nuthatch, 25 Bushtit, 2 Bewick's Wren, 1 Allen's Hummingbird (♂), etc. 1 Steller's Jay with nest material.

18 Mar Had breakfast with Pete + Lois Myers et al in Orinda, and took some acorn woodpecker notes on Pearson's birds (see sp. account).

24 Mar Hastings Reservation, Carmel Valley, CA -- I arrived here about 2 pm, as Ted Koehler, who was visiting Walt + Pam, was just leaving. Later Walt + I tried to watch up on the Arnold, where we saw no Acorn woodpeckers, but I had fun watching other birds visit Bianca's sap tree (see Bianca notes). I tried to watch roosting at 1800, but they didn't roost in the dead tree where we bagged the ♂ last + all. Very enjoyable dinner at Red House with Walt, Pam + the Pattons.

25 March A good field day! Fun watches at Lower Haystack (mini-revolution) and Plaque (post-revolution), Plus my first Western Flycatcher (2) and Lawrence's Goldfinch (5) both lifers seen out in front of the lab area. Hastings is definitely springing up. Oaks are in bud now (no leaves), Buckeyes are leafed out, willows are

Journal

Hastings Reservation, Monterey Co. CA

(25 Mar) starting to leaf out, etc. Grass isn't especially tall yet, and Red Hill still looks predominately gray. Grazed areas look very Green. Many Shooting Stars, Baby Blue Eyes, Johnny Jump-ups, Popcorn Flower, some Amsinchia (fiddleheads) etc. Other birds seen today include House Finch (2, with nest in stable), Violet-Green Swallow (many) Say's Phoebe (2), Lesser Goldfinch (10) N. Oriole (1), Orange-crowned Warbler (1), Ruby-crowned Kinglet (4), etc. Scelloporus out and around, plus one Uta on road SW of labs. Many Hyla calling, plus egg masses and tadpoles in horse trough.

26 Mar Not a very productive day. Gray + breezy in the AM, and wind and rain all afternoon and night. I tried to watch at Hay-Blom, Lower Haystack, 1800 + 1500 and only saw the ♂ at Hay-Blom, unbanded ♀ at Low Hay, and zilch at 1500 or 1800. I tried to go back to the latter two for roosting, but the little buggers go to roost early when it rains. Both groups had birds in the main roost holes of their respective granaries at 1740 and 1750, respectively, about an hour earlier than the bird at Low Hay roosted the previous night. It was interesting that I saw no Violet-green Swallows today, after they were so prevalent yesterday on Haystack Hill in the good weather.

27 Mar A very strange day. Heavy rain in the AM, partly cloudy + breezy in the afternoon, and rain again this evening. I managed to sneak watches at School Hill and 1500 in the afternoon, then screwed up trying to watch roosting at 1500 (saw

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Hastings Reservation, Monterey Co., CA

(27 March) just one bird roost) and 1800 (flushed two birds out of the granary roost very late: I hope they continue to roost there).

30 March Arrived here with Frank about 1630, enjoyable dinner with Pam + Walter

31 March Left with Frank, Walt + John to Hunter Liggett Military Reservation. Fantastic Acorn Woodpecker habitat! Open Valley Oak Savannahs, and almost every large oak served as a granary (bark of main branches + trunk) However, we saw no stored acorns, and only a few woodpeckers. Must have been a very poor crop here, too. We did see a group of three where two birds were following the third around, and Walt speculated ♂♂ guarding behavior.

Also saw 2 Wood Duck, 1 Western Kingbird, Lark Sparrow, Killdeer + nest (sp. acct). 1 Golden Eagle, 10 Violet Green Swallows, 2 Rough-winged Swallows, plus usual Nuthatches, W. Bluebirds, Juncos, Scrub Jays, Flickers, Nuttall Woodpeckers, singing Purple Finch (at Hastings; fide FAP)

1 April Returned to Berkeley early AM.

26 April Drove here in a driving rainstorm, with my car screwing up constantly, (stalling at idle speed), gas stations closed and out of gas, etc. Miserable! I did stop at San Francisco and pick up COS addresses from Matt Leidy. Hadn't rained all that much at Hastings, but things are really beautiful right now. Everything is very green

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Hastings Reservation, Monterey Co., CA

(26 April) Many areas of dense lupines in bloom. Shooting stars, yellow Viola, Orobanche still around. Saw two lifers, Black-throated Gray Warbler (a singing ♂ around the labs), and a ♂ Black-chinned Hummingbird at Pam + Walt's feeder. Valley oaks + Blue Oaks are about half leaved-out. Many catkins on all oaks, especially agrifolia. Warbling Vireos, N. Orioles, numerous and singing loudly. Cooper's Hawks conspicuous, calling. Met Larry Hanks, and chatted with him and Nancy. Wilson's Warblers, House Wrens, etc.

27 April A very pleasant day! watched at School Hill and Haystack - Blomquist in the AM, then helped Walt set an ambush at Lower Hay before touring Corral Viejo Canyon in the late afternoon. Finally, I tried to watch roosting at Lower Hay in the late afternoon - evening, but the two birds looked at the hole suspiciously before moving on, and apparently roosting elsewhere. Dinner at Red House with the entire crew.

Enroute, I added Ash-throated Flycatcher, seen at dusk on Haystack Hill. Golden Eagle over Watertank Hill, Red-shouldered Hawk apparently nesting at the Y sycamore, Oriole nest at the N. Plaqre Valley Oak, Diamondback Rattler near Hastings Cabin (found by Larry + Nancy), Striped Skunk at Blomquist,

28 April An enjoyable AM on the Arnold, watching at Arnold 1 and Arnold 3. We also stopped by Lambert, where birds had recently returned. A ♂ + ♀ (banded) were offspring of the

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Hastings Reservation, Monterey County, CA

(28 April) group from 1976, according to Walt, and they were there with an unbanded ♂. The unbanded ♂ was chasing the hell out of the banded ♂, at least 50-100 sorties in about 15-20 minutes. I expect that the ♀ and unbanded ♂ will pair, and brother may have to split. Don't know where the birds wintered, but it wasn't on Lambert. The banded (chased) ♂ frequently urkked and garricked, the ♀ taking no part in the chasing, just saying waka to everybody. Neat stuff.

Afternoon was spent unsuccessfully trying to fix my car, which is still fucked up. Walt, Larry and I tooled up to School Hill, seeing a Scrub Jay nest (4 eggs) in a bush, Quercus agrifolia (tree about 4-5 m, nest 1.5-2 m off ground. Many Grosbeaks singing on the west slope of School Hill. Watched roosting at Low Hay again, missing actual roosting again, but I did scare a bird out of the old nest cavity in the horizontal limb of the blue oak south of the hide.

29 April A nerve wracking drive back, trying to keep car from stalling, wondering if I had enough gas, etc. Made it back on fumes, I guess.

10 May A very pleasant drive down, and a beautiful warm day. After lunch I watched Pam run her mist nets for awhile. Then Walt + I set an ambush (that failed) at Low Hay, then proceeding to Blom One, where I saw my first Acorn Woodpecker nest!! It was the same hole

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Hastings Reservation, Monterey Co. CA

(10 May) that they nested in during 1978, in the Q. lobata granary, about 10 M high in a hole facing downward. Walt climbed up (via rope ladder) and found three eggs. The group isn't well known, but one of the males is from Hay Blom, and the other ♂ could be that birds older brother, (from Hay blom) or an offspring of Blom one 1977. It will be interesting to see how the breeding duties break down.

Birds (♂+♀) have just moved in to Y, the ♀ an old westgate bird, the ♂ unbanded, and Larry Yanks reported a lone, waka-ing and garrick-ing ♀ back at Chongo (unbanded). I also heard (through Walt) that Nancy had seen some dominance interactions at 1500, the 2-♂ 1976 sibs from School Hill. The dom. bird was the largest of the nestlings, and he took a major role in nesting last season, while the other ♂ took a very minor role. Encouraging!

Saw my first Purple Finch and Lazuli Bunting, both singing ♂♂ near Big Creek. Wilson's Warblers, Black-throated Gray warblers, N. Orioles, Ash-throated Flycatchers, Grosbeaks etc. all around. Walt showed me a Lark Sparrow nest (3 eggs) under some Lupinus near some blue oaks in Blomquists' pasture. House Sparrow (♀) at the Davis'.

11 May A terrific day, very warm + sunny. I started off by having a good watch at School Hill, and while there I had some fun general ornithology. I

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Hastings Reservation, Monterey County, CA

(11 May) checked the Scrub Jay nest that Walt had showed me two weeks ago. The nest was in a 4 meter Live Oak along the main trail up to school hill, just below the meadow. Young looked like about 8-10 days old, I counted 3 (Walt says should be 4) so I may have missed one. Saw a Western Tanager ♂ while up there, also heard olive-sided Flycatchers calling in the Madrone woodland below. And, I found a Rufous-sided Towhee nest SW of the School Hill Field. The nest was located on the ground under some spindly, shrubby dead branches, out in the open in an area of madrone, Live Oak + Black Oak, the nest about 4 meters from an 8 meter Live Oak. I was alerted to the nest when I saw a ♂ with a bill full of insects, nasal-calling continuously. The ♂ was very cautious, but after about 20 minutes, he finally went to the nest, I counted (very quickly) three partly feathered, closed-eye young, maybe 5-6 days old. After that I moved to 1800, where I had a fun meeting with a Rattlesnake, and had a good watch. Stopped at 1500, where Nancy was watching, and saw a pair of Red-tailed Hawks fooling around on the NW slope of School Hill. One of the two was in heavy tail molt, and I saw it with some kind of snake in its talons. Watched roosting at Blom One with Larry, where two birds appeared to roost in the nest hole (where there are still 3 eggs: completed clutch). If one was the ♀, practically unprecendented.

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Hastings Reservation, Monterey Co., CA

(11 May) Other birds today were Barn Swallow (Walt and Pam say unusual), one flying around Lower Barn, appropriately enough, Lawrences Goldfinch, Ash-throated Flycatchers, Steller's Jay, Cal. Thrasher, Hutton's Vireo, Purple Finch, etc.

12 May Another gorgeous, though very hot, day. Started off with Walt and I going up to the Arnold, where we saw a modest revolution at Bianca, many Starlings, and my first Western Wood Pewee. Later, I watched Walt check a nest (4 eggs) at Plaque, watched him check the Road 3 nest (3 eggs) and set me up to watch incubation shifts. I also tried unsuccessfully to tell which ♂ roosted, without success.

Swainson's Thrush the only new Hastings Bird I saw today, plus Olive-sided Flycatcher, etc. 13 Cedar Waxwings flew over the labs.

13 May Helped Walt + Pam band two broods of Scrub Jays, one of four (about 11 days) on School Hill and one of three (about 20 days) in the Bells' backyard. Also showed the Towhee nest to Pam and Walt. Left for Berkeley about 1000

19 May Arrived here with Trish for a brief visit. The high point of the day was that Walt climbed up to a Red-shouldered Hawk nest to band three young, finding a House Finch nest immediately under it. Both nests had three young. The hawk nest was located in the

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Hastings Reservation, Monterey Co., CA

19 May sycamore west of the gate sycamore along the road (Westgate granary tree). Fun dinner at Red House.

20 May Walked up to the Arnold with Trish, seeing a young Rattlesnake eating a Chemidophorus lizard. After lunch, we drove up to the Coast Road, and then drove south to Big Sur before returning via Pt. Lobos. Enroute I saw one Pigeon Guillemot, 40 Common Murre 4 Pelagic Cormorants, 5000 Brandt's Cormorants the latter two at Pt. Lobos. Also spotted 4 Sea Otter, and some kind of Seals, at Pt. Lobos.

24 May Arrived here at about 1400 on a clear, warm day. Spring is giving way to summer, as the creek flow is starting to dwindle, things are getting brown, etc. Lupinus is still with us, but not for much longer.

I watched up at School Hill in the afternoon, (nest with eggs) and tried (unsuccessfully) to tell which of the ♂♂ spent the night in the nest.

25 May Boy, was I ever a total incompetent today. First, I watched the nest at School Hill, not realizing that the tape recorder was fouled up, thereby wasting the morning. I then tried to watch the nest at Black Oak, and it took me an hour to realize that I was not watching the right hole. A real

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Hastings Reservation, Monterey County, CA

(25 May) good days work!! (sarcasm). I did manage to see a couple of unbanded ♂♂ and an unbanded ♀ at Lower Arnold 2, and I did find out where at least one of the School Hill birds is roosting (Low Blue Oak Hole) but that was about all I contributed. White-tailed kite along Big Creek at dusk.

26 May Things slightly better on this very hot day. I watched (successfully) at Finch in the AM + PM, and tried to watch roosting at Lower Arnold 2, flushing two birds out of the Valley Oak hole behind the dead Blue Oak. They didn't return later, and did not roost in the Blue Oak holes, either. I last heard karrit-cats down in the canyon.

Chatted with Bonnie Stearns and a couple of other psychers rei Acorn woodpecker Biology.

27 May Ambushed with Walt at School Hill today, trapping ♂402 + ♀260 at the roost hole, meaning ♂86 spent the night in the nest. After bagging a few zeds, I then had a fairly dull watch at Black Oak.

At dinner, Walt suggested that during nest relief, ♂♂ chatter, but ♂+♀ walk. Dominance? Walt noted at Finch that one bird chattered profusely when exchanging at the nest, and seemed like the less dominant individual.

1-3 June A terrific + fun weekend here with the ornithology class field trip. I drove down to Hastings Friday 1 June

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Hastings Reservation, Monterey County, CA

(1-3 June) with Anna Haynes, Ron DeBry, + Jan Caulfield, arriving about 1230. We walked up to the Arnold, hearing a picric acid explosion on the way down (Bomb Squad from Monterey had detonated it). The rest of the class arrived around 6pm, and after dinner we went for a walk, seeing a white-tailed kite and catching a baby Cal Quail. Walter spoke on AW's in the evening, before most of the class walked up to School Hill to spend the night. That was great fun, and Mary Lou Higgins, Ron, Jan, Louise Lyon, Jill Marten made it that way. A quarter moon set about 2am, then great stars + milky way

A rather unproductive Sat AM bird walk (Yellow Warbler, Solitary Vireo, a new Oriole nest for Pam) before Pam talked a little about her orioles, banding some babies for us, and Walt showed us the nest at 1500. Lunch, a siesta, the hours of too long student talks. We broke around dinner for a walk up Red Hill, getting a beautiful view as the sun set and the fog rolled in up the valley. Terrific. Also a Mourning dove nest on the ground up there, 1 egg. Another fun night on School Hill, joking with Mary Lou about her smashing me in the ear earlier in the day to allegedly kill a mosquito.

Sunday AM 3 June we drove to Pt. Lobos, and although Jill's car broke down enroute, we had a good time there, seing the Brandt Cormorant colony, 10 or so pairs

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Hastings Reservation, Monterey Co. CA

(1-3 June) of Nesting Pelagics, 1 pr of Black Oystercatchers with eggs, 3 Pigeon Guillemot nests (one with a single egg) Cliff Swallows, White-throated Swifts, Rough-winged Swallows, Lawrences Goldfinch, Pygmy Nuthatch, abundant White-crowned Sparrows, etc. 2 Brown Pelicans, 1 Sea Otter, Sea Lions, Harbor Seals, etc. We ate lunch at Lobos before leaving, and Jan, Ron, Anna and I had fun on the way back.

14 June Walt + I drove up to Arcata for the Cooper Mtngs, camping along the way the night of 14-15 June. At our campsite along a river near Dos Rios, I saw Common Merganser (♀, apparently with a nest in tree cavity over river), Acorn Woodpecker, Spotted Sandpiper, Western Flycatcher, Cliff Swallow, Ashthroated Flycatcher, Good time at the meeting

18 June I left Berkeley around 1230 with a carload of stuff, and arrived at Hastings for my summer residence at 1615, moving into the north bedroom of the bunkhouse. Went out with Walt to check the nest at Black Oak (two healthy young) and the nest at Valhalla (failed, two dead just-hatched young and a third near death that died later). I tried to watch roosting at Road 1, but nobody roosted in the nest (it too may have failed: School Hill, Arnold 1, Arnold 3 all failed about this time, after a spell of cool weather).

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Hastings Reservation, Monterey County, CA

19 June Walt and I sent off the abstract of the "nest help" talk for the AOU meeting first thing in the morning before driving up to the Arnold. I had a boring watch at Black Oak (see notes). After lunch we cruised up Poison Oak Hill, seeing few birds, no nests, but lots of granaries and former (?) territories. I then tried to watch at Y for an hour, but the birds there seem to have disappeared. Many fledgling Orioles around the picnic tables as I write this at 1930. ~~Plague nestlings (3) fledged today.~~ 2 fledgling Crows with two adults around, Brood of young quail.

In the evening I again watched the nest hole (or former nest hole) at Road 1, and though I saw a white-banded (left leg) bird enter, it didn't stay. The nest is probably kaput.

20 June Productive day!! Good nest watch at Black Oak, good group watches at Arnold 3 and 1800, a good dinner at Hastings Cabin with Nancy, Larry, Robbi + Sue. The only negative aspect was that I struck out trying to watch roosting at Arnold 3.

21 June Not such a productive day!! I had a terrible watches at Black Oak + Arnold 3, But I did get to see Walter band Wickers #497-502 (Black Oak + Finch). A decent nest watch at Lower Haystack in the PM, then another fine dinner at the cabin on Robbi's last day here.

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Hastings Reservation, Monterey Co., CA

22 June Interesting Day! Started out with another lousy watch at Black Oak, a 2-visit job. I then looked for birds at Bianca + Lower Arnold 2 before stumbling onto a mini-revolution at Arnold 3 (see copious Arnold 3 Notes). I totally blew a nest watch at Lower Haystack, but consoled myself with Champagne + Carrot Cake at the 500th bird party at Red House.

23 June Today turned out OK. Watched first at Arnold 3, catching a little more revolution action, and then looked for birds at Lower Arnold 2 and Bianca. Then I took my obligate "wasted-three-hours" nest watch at Black Oak. Later I helped Walt check a nest (three 5day young, one extreme runt) at gazebo, then I watched for birds briefly but successfully at 1800. Finished up by watching roosting at Lower Arnold 2 and Arnold 3.

24 June After the token "no-visit" watch at Black Oak ~~too~~ in the morning, during which I finished a letter to Ken Bradbury and started a letter to Nelson, I lounged around the bunkhouse in the early afternoon, then returned to the Arnold with Walt to set an unsuccessful ambush at LA2, and take in a three-visit watch at Black Oak. Returning from the Arnold after dark, the day was saved by a Spotted Skunk ~~near~~ between the gate and the first crossing, plus a doe and two spotted fawns.

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Hastings Reservation, Monterey Co, CA

25 June Slept late this morning before going out to Westgate to watch for birds, and saw a one-legged bird (see Westgate notes). I then trucked into town for groceries, and then back up to the Arnold for yet another in a continuing series of exciting watches at Black Oak. I tried to watch roosting at Arnold 3 while Walt was trying his luck at Bianca, but I learned absolutely nothing.

26 June An early watch at Black Oak (one feeding visit, a letter to Russ + Judy) got the day off to a roaring start. I then had a grim watch at the nest at Buckeye, after Larry showed me where it was. In between, I checked all the holes on the Arnold, seeing nothing that looked like nesting activity. For roosting, I took in Westgate, hoping that they would roost in an ambushable hole. I'm not sure, but it doesnt look at all good.

27 June Began the day watching up at Buckeye before moving on to the Arnold for a Black Oak nest watch, "helloing" the Arnold holes, and watching roosting at Arnold 1. Pam then had Larry, Nancy, Ruth Griffin and I up for dessert (pettifores) and champagne. Two glasses of champagne on an empty stomach (I hadn't had dinner yet) were too much for me. I felt a little looped.

28 June A pretty productive day, watch-wise. Black Oak actually came through (at last!) with an interesting

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Hastings Reservation, Monterey County, CA

28 June watch in the morning, and then Buckeye also was kind enough to generate some data for me (see group notes). Watched roosting at Buckeye and had a beautiful sunset as I walked down from there in the twilight.

29 June An outstanding watch at Buckeye in the morning, followed by a zero watch at Black Oak (high winds, no nest visits. I also did the Arnold hole circuit, seeing nothing. Roosting watches were canceled as Walt and Pam had Nancy, Larry, + I up for an excellent ribs dinner. Very good food + company.

30 June On this last day of June, I tried to watch up at Black Oak, but the young hare (I think) already fledged. A nest watch at Lower Haystack and roosting at Buckeye finished up the day.

1 July Watched at Lower Haystack in the AM, then tried to look for the Plaque Babies in the late afternoon, without success. I did poke around in the oak trees of Plaque, and saw a lot of "baby" acorns on trees. All the valley Oaks looked loaded, a few of the Lives, and even some Blue Oaks had acorns. Roosting at Buckeye.

2 July Once again I searched for the elusive Plaque babies, and again I struck out. However, I did find what may be a new group west of MacRoberts (see ? ? notes). A nest watch at Lower Haystack turned out OK, and on the way down at 1630, I saw two adult Barn Swallows perched

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(2 July) On the wires paralleling the fenceline (at the very foot of Haystack Hill. I called North Carolina before dinner, watched roosting (or lack thereof) at Y, and ate a great peach pie (made by Nancy) with Larry & Nancy in the bunkhouse afterwards.

3 July Another "shitty day in paradise." Really, not all that bad. An OK nest watch at Buckeye in the morning, grocery shopping, and then more wasted time looking for Plaque babies. I tried to watch roosting at the "group" west of MacRoberts, but failed miserably. Peach Pie + Ice Cream with Nancy, Larry, Barbara (Nancy's roomie at Berkeley) in the bunkhouse afterwards.

4 July On the USA's ~~200~~ 203'rd, I watched at Buckeye in the morning, then accompanied Walt to Corral Viejo canyon to try to help him open a nest hole over there. No roosting tonight, as Pam + Walt had the whole crew up to Red House for a 4th of July Barbecue.

5 July Wasted the entire morning looking for the babies at Plaque. Things look bad for them, especially since Nancy watched roosting there tonight and saw just two birds roosting in the nest hole (fide Larry). I took my afternoon nest watch at Buckeye, washed some clothes, and then watched roosting at Buckeye.

6 July A pretty good ~~a~~ day!! Started very early with a successful ambush at Arnold 1, catching the unbanded ♀ there. After bagging a few zeds, I then watched a little for babies at Finch and, more successfully, Road 3. Saw no dominance

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Hastings Reservation, Monterey County, CA

(6 July) activities, but I did get a pretty good census of the group. After an afternoon watch at Buckeye, had a great Lasagne dinner up at Hastings Cabin with Larry, Nancy + Barbara. Superb! Roost watched at Arnold 3, as Walt watched an ambush set at Lower Arnold 2.

7 July Another successful Ambush!! Two unbanded birds at Lower Arnold 2 are now suitably decorated. Later in the morning I watched at Road 3 and Finch for babies, slept some, then cruised over to Blomone to look for babies, checking (and seeing no birds) at Y and "Son of MacRoberts." A nice burrito dinner with Nancy + Larry at the cabin, followed by roosting at the Arnold. Walt had set an ambush at Arnold 3, and they were already in the hole when we got there. Three in a row?? Dare I say it?? We'll see tomorrow. Also took notes on Black Phoebe nest and Mountain Quail today.

8 July An unprecedented three straight successful ambushes!! Today, the new ♂ at Arnold 3 joined the ranks of the banded birds. Later, I watched the nest at Buckeye, before sleepling a bit after lunch. Ron DeBry showed up briefly, then I went on an "insect tour" with Larry. A great dinner at the cabin, featuring a rich chorolate cake, and fine company from Larry, Nancy, Walt + Pam.

9 July Took the day off as far as ambushing goes, but I watched at Buckeye in the morning, sorted bugs with

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Hastings Reservation, Monterey County, CA

(9 July) Larry in the afternoon, then had yet another great, glutonous dinner at the cabin with Larry + Nancy. Watched roosting at Buckeye, before I called Pete Myers to find out that I can have his apartment in the fall. Cake + Ice Cream followed at the Cabin.

10 July Hardly accomplished anything today. Tried to watch for birds at the "Lawrence M. Hanks Memorial Territory", seeing nothing, then tried to see some fledgling dominance interactions at Blom-one, seeing nothing. After lunch I watched the nest at Buckeye, seeing next to nothing (one visit in 3 hours. Shades of Black Oak). Watched Roosting at Buckeye.

11 July Took a morning watch at Buckeye, followed by a grocery run to mid-valley with Larry + Nancy, followed by a blown couple of hours at Finch trying to see birds. A fun chainpagne - chocolate cake - watermelon desert topped the day at Red House with the whole crew plus Ted Kaehler. The occasion was Larry's eventual departure, scheduled for 13 July. Also, "Welcome Back Skylab"

Pinnacles National Monument, San Benito Co, CA

12 July A day off at Hastings. Walter, Larry, Nancy and I explored the Pinacles National Monument, going on a rather long, dry hike along the High Peaks and cave trails. Very hot, but we had fun, and saw a few good birds. I saw two lifers both members of the Troglodytidae, Cañon Wren and

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Pinnacles National Monument, San Benito Co., CA

(12 July) Rock wren, both seen in the rockier areas of the Monument. Also heard Cañon Wrens singing, with their beautiful, descending gurgling song. 2 Prairie Falcons, including one perched on a rock ledge 30 m from us, were also nice. The actual list (which may differ from Walters) is below:

1000-1500 Hrs. Hot, clear, light winds.

Turkey Vulture	35	Wrentit	7
Red-tailed Hawk	2	Bewick's Wren	2
Prairie Falcon	2	Canyon Wren	4
California Quail	10	Rock Wren	1
White-throated Swift	80	Western Bluebird	2
Red-shafted Flicker	3	Hutton's Vireo	1
Acorn woodpecker	6	House Finch	5
(2 groups 4ad; 1ad, 1juv.)		Lesser Goldfinch	10
Ash-throated Flycatcher	4	Brown Towhee	4
Black Phoebe	4		
Western Flycatcher	10		
Western wood Pewee	1		
Violet-green Swallow	1		
Cliff Swallow	1		
Scrub Jay	2		
Plain Titmouse	4		

Enroute along 6/6 between King City and Hastings, 2 ♂ Phainopepla

Hastings Reservation, Monterey Co., CA.

Back from the Pinnacles in time only to watch roosting at Buckeye.

Journal

Hastings Reservation, Monterey Co., CA

13 July Friday the 13th, and an eventful day it was. First, the weather has taken a sudden turn to the hotter. I should have known that all the cool weather we'd had since I arrived couldn't last. Second, good old Larry Hanks left the Reservation today, and we were sorry to see him go. I will now be solo in the bunkhouse for at least a while. As far as wickerbill work goes, I watched at Buckeye today, seeing one of the nestlings fledge. After a long afternoon siesta (Too Hot!!), Walt + I cruised up to Lower Haystack to try to catch the always elusive unbanded ♀. She, of course, eluded us again. We did manage to stumble upon a rattlesnake at the base of the granary tree, however. I also watched roosting at Low Hay, then had dinner at Red House with Walt + Pam.

14 July Today the heat wasn't nearly as nasty as it was yesterday. Had an interesting watch at Buckeye in the morning, followed by siesta + an afternoon nest watch at Lower Haystack. While there, I missed the excitement of a fire on the reservation, at the road near Road 3. Fortunately it was contained quickly, but I took no part in it. Watched roosting (or lack thereof) at Lambert, while Walt watched at Bianca, for Ambush. A nice King Snake near the pump afterwards.

15 July Started the day by driving up to the Arnold to catch the tail end of an ambush by Walt at Bianca. Only the two banded ♂♂, former Arnold 3 residents were there, meaning that it is likely that no ♀ is present.

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(15 July) I then watched some at Black Oak, the collected baggies in the afternoon, seeing a Golden Eagle being harassed by Red-tailed Hawks (see sp. acct.). Dinner at the cabin with Nancy, then roosting at Road 3.

16 July Started the day by fooling around with the road groups, spending most of my time at Road 1, where I had a pretty good watch. Spent almost the entire afternoon sorting bugs (what a drag!) before having a nice dinner with Nancy at Hastings Cabin. After dinner, we went on a pleasant walk up Finch Creek from Road 3, seeing Pat's cabin for the first time, enjoying the maples + alders upstream, and checking out the damage that the fire caused. I was going to try to find and watch roosting at School Hill West, but I remembered that I hadn't watered Walt + Pam's garden (they are in Berkeley) and seen Winnie, so I did that instead.

17 July A fairly eventful, productive day. Had an excellent watch at Black Oak today, before reading most of Peter Stacey's thesis. Dabbled a bit at Road 3 in the late afternoon, after things had cooled off, and had a leftovers dinner at the cabin with Nancy. Tried to watch roosting at School Hill West, my first visit up there. I saw no birds, but I did manage to find a NOAA radio telemetry weather device, which had floated down next to the School Hill West granary. Took notes on Chestnut-backed Chickadee + Western Bluebird.

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Hastings Reservation, Monterey County, CA

18 July A productive day it was! Great watches at Finch (AM) and Road 3 (AM + PM) censusing the entire groups. The heat of the day saw me receive notice that the AOU abstract had been accepted, and take a swim in the Davis' Pool with Walter, Pam + Nancy. Tried to watch roosting at the nest at Gazebo (Walt has designs on the unbanded ♂) but saw nothing, as I got there quite late. Oh, I did see a Belted Kingfisher at the Finch Creek bridge.

19 July Hardly accomplished anything today. Wasted the morning at Buckeye, seeing no birds, then went into town with Nancy, picking up a dead ♂ Cal Quail on the way in. We saw it as it was hit by a truck, and ate it for dinner. Tough as nails, but a good vehicle for rice, mushrooms + onions. Also washed some clothes, and talked with both Dave Winkler and Frank on the phone.

20 July Started the day with pretty good watches at Blow-one and Gazebo. Jan Caulfield rolled in around noon to trap some Gophers, and we chatted awhile, the helped Nancy pack and make a Peach Cobbler for the "goodbye cabin, hello Buck" party! Fooled around a little with stuff for the AOU talk for awhile. Nancy is reading this over my shoulder and is amused at my command of the English language and my "indescribable" wit. The party was great fun, and I ate enormous quantities of Icream, Cobbler, Watermelon, Enchiladas, Fruit Salad, Chili Reino et al. Not to mention the wine which has indoubatibly influenced this entry.

Journal

Hastings Reservation, Monterey County, CA

21 July A terrific day!! First of all, Rain! Real, live, unadulterated rain!! A few sprinkles, distant thunder when I woke up. Watched at Black Oak for awhile as the overcast became grayer, thunder increased, and the rain started to come down in earnest. Late morning, Nancy, Jan + I took a walk in the rain up around School Hill and School Hill West, and It was great! Beautiful views of the fog rolling in, beautiful sounds of the rain dripping off the branches. We got thoroughly wet, but I enjoyed it very much. We succeeded in flushing a Barn Owl on the School Hill Acorn Trapline, and hearing two wickerbills at School Hill West. A fun lunch, complete with fire in the woodstove, followed in the "cozy" bunkhouse (this is Nancy's first day in the bunkhouse). I tried to do a little bit of work on the AOU talk in the afternoon ~~in the afternoon~~ but didn't accomplish much. We fed Jan some leftover burritos before she left, just as Buck Cornell, his wife Sally, young baby Christopher, and graduate student Jan (Washburn?) formerly of Florida State, drove up in the fog. They seemed like nice folks. At dusk, Nancy + I walked ~~up~~ ~~about~~ out to the road in the fog, putting the final touch on a really marvelous day.

22 July The good days just keep on rolling. This one was made exciting because I found a first bird record for the Reservation, an out-of-range, out-of-season Parula Warbler (see copious P. americana notes). After yesterday's rain, today was hot + muggy, making the warbler

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Hastings Reservation, Monterey County, CA

(22 July) feel very much at home, I'm sure. Otherwise, I didn't do too much today. Worked a little on the AOU talk, collected the insects, helped Pam + Walt clean up the office for the gall wasp crew, ate a nice eggplant dinner in the bunkhouse with Nancy, then weighed the bugs from last week.

23 July Didn't do much today except work on the AOU talk, sort ~~weigh~~ bugs, and watch (or try to watch) roosting at School Hill West. Afterwards Nancy + I went up to Red House as Frank arrived from Berkeley

24 July Today we had our "interplanetary" symposium on the Acorn Woodpecker, talking with Frank about Nancy's 1500 data, Nest help data + AOU talk, and vegetation sampling. Went swimming briefly with Nancy after lunch, then sorted bugs until dinner. A great dinner up at Red House with Frank, Walt, Pam + Nancy. Slightly loaded from wine, Nancy + I had a nice talk in the bunkhouse afterwards.

25 July Worked on the paper, weighed bugs and had a "goodbye" dinner with Nancy, and a goodbye dessert with the Wickersills + Joan Griffin.

26 July Berkeley, en route to Mono Lake What a hassle! Enough said about that.

27 July Lower Lundy Canyon, 5 miles N. of Mono Lake, Mono County CA ~6600 feet Left Berkeley at 0630 with Jan Caulfield, and headed East for the "Natural History

Journal

Lower Lundy Canyon, 5 miles N. of Mono Lake, Mono County, CA ~6600 feet

(27 July) of the Mono Lake, Tioga Pass Region," taught by Dave Winkler and David Gaines. The ride here was very beautiful, going through Yosemite, Tuolumne Meadows, and Tioga Pass. After setting up camp at Lower Lundy Canyon, we explored Black Point, and I saw Brewer's Sparrow and some probable imm. Sage Sparrow. Black-billed Magpies at Mono Co. Park, and Clark's Nutcrackers at Tioga. Pygmy Rabbit in Sagebrush at BP.

28 July Today we visited Mono Lake at the county park, then started to explore Virginia Creek all the way to its headwaters above timberline at Virginia Lakes. Enroute we saw Mountain Chickadee, Cassin's Finch, Orange Crowned Warblers, and Sage Grouse on the way back. Also ~~gr.~~ Green-tailed Towhee. Yellow-bellied Marmot, Pika, ~~Red~~ Chickaree, and Least Chipmunk also all seen. A very nice hike around the Virginia Lakes area.

29 July Today we explored the South shore of Mono Lake, including the South Tufa, Mono craters, etc. Swam in the Lake, the washed off in a nearby hot spring. 2 Northern Phalarope, plus many Wilson's Phalaropes and Eared Grebes also seen. We then explored the large Jeffrey Pine (and later Lodgepole Pine) forest to the SE of the lake. Around Crooked Meadows area, we saw Mountain Bluebird and Dusky Flycatcher (up & down tail wag, Gray Flycatcher

Journal

Mono Basin, Mono Co, CA

(29 July) strictly down). A nice talk from Dave Gaines regarding the future of Mono Lake. Good campfire in the evening, with cowboy music from the two Daves. Golden-mantled Ground Squirrel

30 July Jan and I left the class last night, camping at Dave Winkler's Cabin (seeing Sage & Thrasher in the morning) before accompanying Dave, Suzanne Morse, and John Anderson out to Krakatoa, Dave's Volcano-living quarters. Picked up dead gull chicks in the afternoon, then we banded chicks in the late evening. Good fun!

31 July More picking up of dead chicks in the morning before returning to shore around 1100. Jan and I left about 2, and I dropped her off in Berkeley about 715 pm before crashing in my office at night.

1 Aug Hastings Reservation, Monterey Co, CA

Finally back on the reservation, arriving 0930 after leaving Berkeley at 0600. I was greeted by the bad news that a fire had burned 30+ acres on the Arnold while I was gone, and the fire crews had bulldozed the Arnold 3 granary. Very depressing. The fire had started when Buck Cornell pulled off onto the grass, and his catalytic converter touched the grass. Walter, Nancy + I checked it out in the afternoon and the Arnold Field looked like pretty much of a moonscape. Blanca + Black Oak survived unscathed, but Arnold 3 suffered dearly, as did Big Tree (also bulldozed) Lower Arnold 2 could also be in trouble

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Hastings Reservation, Monterey Co., CA

(1 Aug) as their dead Blue Oak was burned up quite a bit, although it's still standing. The W. Bluebirds, Mourning Doves, and California Quail all seemed to be casting in on the burn, however, as they were seen in large numbers. Seeds are fairly exposed and easy to get at on the burn, explaining the abundance of Quail + Doves. Bluebirds are tougher to explain, but there were lots of wasps hovering over the scorched earth, and perhaps that was what the bluebirds were after. Nancy + I had dessert up at Red house with Walt, Pam, and the Griffins.

2 Aug Today I worked on the AOU talk some, helped make Acorn Traps, and climbed up to the Plague nest hole to check for non-fledged babies. Dead banded babies had recently been pulled out of Lower Haystack and Black Oak. No sign of babies in the Plague hole, and I had a tough first lesson in tree-climbing and hole-checking. Later, watched roosting at Westgate before taking a pleasant evening walk with Nancy.

3 Aug Actually went out into the field today, watching some at School Hill west. The rest of the day was spent working on AOU talk stuff, making Acorn Traps, etc. Another nice walk in the evening with Nancy.

4 Aug Lo + Behold, out of the blue today returns Larry M. Hanks, arriving in style in his Datsun 280Z. The occasion was sufficient for Pam + Walter to have us up for dessert. Otherwise, I spent the day working

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Hastings Reservation, Monterey Co, CA

(4 Aug) on the AOU talk.

5 Aug Made AOU slides + left for Berkeley

6 Aug Berkeley, Apt.

7 Aug Berkeley, "Room Service" with Dave + Suzanne

8 Aug Left Berkeley at 0600, returning to the Reservation at 0915. Revised the AOU talk some, but mostly cavorted at Red House with Pam, Walter, Larry + Nancy in honor of Pam's birthday.

9 Aug Tassahara Hot Springs

10 Aug Final typing of AOU talk. Slept on Red Hill.

11 Aug Berkeley

12-17 Aug College station, Texas, for AOU meetings. Lots of fun. Saw two lifers, Great-tailed Grackle and Scissor-tailed Flycatcher. Otherwise, typical eastern birds.

18 Aug Berkeley, Larry + Nancy, David Good.

19 Aug Finally returned to the reservation today, just in time to pick up bugs. Jim Griffin also showed me a Mockingbird in his front lawn. The bird appeared to be a juvenile (streaked breast) and we watched it forage in Jim's front lawn, wing-flicking animatedly and constantly. Jim had also seen the bird the day before (18 Aug).

20 Aug An unusually cool, overcast day, but very pleasant. Watched a little at Road 3 and Finch in the morning. More or less piddled around in the afternoon, watering the garden at Red House (Pam + Walt away), fixing my boots, washing clothes,

Journal

Hastings Reservation, Monterey County, CA

(20 Aug) picking up the School Hill bugs, and the like. Did take notes on Nuttalls Woodpecker. Nancy returned from Berkeley late.

21 Aug Diddled around at Blomone & Gazebo in the AM, not seeing or learning much beyond one of the Corral Viejo canyon groups ("Sunken Oak") has at least two unbanded babies. Sorted bugs and watched at Road 1 in the afternoon.

22 Aug Today was my 1-year anniversary of living in California. I celebrated by first running out of gas in the panel truck on the way out to the road; That was followed by a pretty fun watch at Finch. Nancy and I went shopping in the afternoon before I returned to the road to learn nothing about Finch and Road 3 in about 2 hrs of wandering around. Rooting at Rd 3.

23 Aug Happy Birthday to me!! Started my 25th, 26th year in pretty good fashion. In the AM, Jim Griffin took Nancy & I up to Chews Ridge, and we had a very nice time. Included was a side trip to the Anastasia Canyon fir grove. Solitary Vireo, Sharp-shinned Hawk were the good birds seen. And Hairy Woodpeckers were abundant in the burned areas, working the dead trees they seem to like so much. Pygmy & White-breasted Nuthatches, too. Weighed bugs and chatted with Walt & Pam, just returned from vacation, in the afternoon. Nancy fixed me a nice spaghetti dinner, then it was party time at Red House: Nancy's Carrot Cake, Pams chocolate-lemon cake, ice cream, champagne, etc. Pam & Walter gave me a nice old book on woodpeckers.

24 Aug A pretty good day. I spent all morning up on the Arnold trying to figure out what was going on at Bianca - Black Oak - LA2,

Journal

Hastings Reservation, Monterey County, CA

(24 Aug) Helped Walter set an ambush at Road 3, and later watched roosting there, seeing seven birds go into the ambush hole.

25 Aug A successful blood ambush at Road 3, getting blood from the core birds. Caught 6 birds, only one baby. Later watched up at the Arnold, slept some, had cake + lemonade with Pam and Walter, then watched roosting at Westgate.

26 Aug Successful ambush at Valhalla, followed by a visit to the Arnold, which produced a mini-revolution at UA2 and more bad craziness with Bianca - Black Oak - UA2. Collected bugs in the afternoon, the Walter + Pam had Nancy and I up for a very nice dinner at Red House.

27 Aug "Administrative" matters took up most of the morning, but I did watch some at Finch. Sorted bags in the afternoon, then had an interesting and productive discussion with Walter about statistics in the reproductive success paper. Watched roosting at School Hill West.

28 Aug A basically unsuccessful watch at Buckeye in the morning, but I did see a Prairie Falcon, a Mourning Dove Nest (on ground, 1 ground-dove sized nestling, under fallen Blue Oak branch) and the tail feather of a Golden Eagle. Mostly lounged around in the afternoon, Pam + Walter dined with Nancy and I in the bunkhouse. Started reading "The Boat"

29 Aug Ran errands in Monterey - Pacific Grove in the AM, buying boots and registering my car (getting Cal plates). Chatted with Walt about the post-doc model in the afternoon, then set up an unsuccessful ambush at School Hill West (birds didn't go in).

Journal

Hastings Reservation, Monterey County, CA

30 Aug A foggy, cloudy early morning, with even a touch of rain watched + generally checked up on the Arnold, particularly "Bianca" and Lower Arnold 2. Relaxed and read The Boat all afternoon, then watched non-roosting at School Hill West. Up on the Arnold, I saw a flock of ~18 Cedar Waxwings! Winter is on the way.

31 Aug Diddled around at Blomone in the morning, ~~but~~ then ~~[illegible]~~ grocery shopping with Nancy in the afternoon. Upon our return, Walter gave us the exciting news that the fall nesting season is on!! School Hill had 2 eggs!! Nancy, Walter, Pam + I had dinner at Wills Fargo, then saw Camelot at Hidden Valley. Ice cream with the Griffins, then return to H/NHR -- late!

1 Sept Up before dawn and up to School Hill, in the hopes that I could get some behavioral data during egg-laying. Didn't accomplish much, but I did watch ♀260 actually lay an egg! (see SH notes). With 3 hrs sleep, I slept all afternoon, weighed bugs after dinner.

2 Sept Another intensive School Hill watch in the AM, bug collecting in the PM. Saw a genuine imm ♂ (kestrel-sized) Sharp-shinned Hawk up on School Hill. Roosting at School Hill.

3 Sept School Hill watch in the morning on this Labor Day. Read + slept most of the rest of the day.

4 Sept Checked up on Buckeye, then a School Hill nest watch. clothes washing, oatmeal-cookie-making in the afternoon, then a nice dinner at Red House with Pam, Walter + Nancy.

Journal

Hastings Reservation, Monterey County, CA

5 Sept Watched the nest at School Hill in the AM, then sorted bugs. Watered the garden at Red House, looking in on Winnie and managing to break Pam & Walters hummingbird feeder. Roosting at School Hill.

6 Sept Started the day with a walk up to Chongo, seeing nothing (no Buckeye birds there today). Then check all the "road holes" and watched successfully at Finch. Then the afternoon nest watch at School Hill, and roosting at School Hill. It was quite a bit warmer today than it had been recently, and as I write this in the Bunkhouse at 2230, I am comfortable in a short-sleeve shirt. Out at the road today I saw (late) Warbling Vireo and House Wren, plus a Black-throated Gray Warbler (♂) in Madrone Canyon. Also I flushed a covey of quail into the fence surrounding the Tennis court, killing one and injuring another.

7 Sept An early watch at School Hill, followed mostly by frigging around the rest of the day, then roosting at School Hill. Walter & Pam and Nancy all returned from their jaunts in Berkeley, Nancy kindly presenting me with the "Joy of Cooking" and "Old and In the Way" as late Birthday presents. Very nice!

8 Sept Tried to watch at Blomone and Gazebo in the morning, nearly being seen by somebody at Gazebo. Also saw a Loggerhead Shrike near the Blomone granary. School Hill Nest watch & Roosting after noon. A nice dessert at the Griffins with Nancy, Pam & Walter.

Journal

Hastings Reservation, Monterey Co., CA

9 Sept Dabbled around on the Arnold in the morning, seeing lots of migrants (20 Western Tanagers, some eating Rhamnus berries, 8 Cedar Waxwings, 1 Red-breasted Nuthatch, 1 Say's Phoebe). "Administrative" stuff in the afternoon, the bug collection which featured me rolling the panel truck into the Big Creek ditch near the pump. Non-roosting at CA2, then cake at Red House with Pam + Walter.

10 Sept Slept late, the got the pitfall bugs and shut down the pitfall traps for the year. Helped Jimmy and Betty extract the Panel truck from the Creek bed, then watched the nest at Schoolhill. After Lunch, Nancy and I went shopping (a very hot afternoon, reaching 100° here for the first time this summer) then went for a dip in the Davis' pool. The high point of the day came in walking toward the pool when Nancy and I saw the Roadrunner that has been hanging around Watertank Hill (Lois Bell watched him for 15 min. yesterday from her kitchen window). Roosting at School Hill.

11 Sept Very hot (102°F)! Started with an AM watch at School Hill. Rest of the day was spent cleaning the bunkhouse and prepping for dinner with Pam + Walter at the bunkhouse. Nancy + I had a very nice swim in the heat of the day. Dinner went pretty well, despite the heat.

12 Sept Sorted bugs and set out Acorn Traps with Walter today (hot!) Dave Wake and Harry Greene visited today, and we chatted with them for awhile. Walt and I check the Westgate non-nest, another PM swim, and packing up to go to Berkeley tomorrow.

Journal

Hastings Reservation, Monterey County, CA

13 Sept Leave for Berkeley. Flat tire enroute

14-15 Sept Berkeley

16 Sept Returned from Berkeley around noon. Picked up the bags and weighed last weeks. Dinner with Pam and Walter at Red House.

17 Sept Setup Acorn traps with Walter in the morning, putting some on the Arnold (3 black oak, one golden oak) and two by Road 3 (both golden oak). Nancy returned from visiting her Grandmother in Taft around noon. We made peanut butter cookies in the afternoon before I watched the nest at School Hill. After dinner, a fun "goodbye Nancy" end-of-the-summer party at Red House. Champagne, cookies, cake, etc.

18 Sept Nancy leaves today!! (Boo-hoo!) More acorn trap business, on the Arnold and Madrone Canyon. After lunch, I cleaned up the bunkhouse a bit, sorted some bugs, checked the holes at Buckeye, then went up to Red House for Pizza and dessert.

19 Sept My last day at the Reservation (sob!)!! At least I accomplished something by finding a Plaque fall nest (shock)! Otherwise, I weighed bugs, watched the School Hill nest, and packed up and cleaned up. Sorry to be leaving.

20 Sept Left for Berkeley at 0700.

26 Oct Finally back for a visit, arriving at 1600. Helped band the fall babies at Road 3 with Walter, then a nice dinner with Pam + Walter at Red House. About a half inch of rain had fallen the previous day, and the

Journal

Hastings Reservation, Monterey County, CA

(26 Oct) dust was nicely settled. I heard Cedar Waxwings, saw one Hermit Thrush, and heard a sapsucker. Winter is on the way. A very clear, pleasantly cool day. A fair number of acorns lying on the ground. Birds finally seem to be storing, noting acorns at Westgate when I arrived.

27 Oct A beautiful, clear, cool day. Started with a granary watch at Buckeye, then looked in on Blom-one in the afternoon. In between I finally finished compiling School Hill nest watches from September. Dinner at Red House, and then a pumpkin-carving party with Pam + Walter, John, and the Griffins. I managed to produce a striking likeness of Kermit the Frog.

Birdwise, many Hermit Thrushes around, some kinglets, a very few Yellow-rumped Warblers, but the Zonotrichia's + Juncos seem to be here in decent numbers. Heard Sapsuckers, Waxwings, 2 ♂ Lawrences Goldfinches still around, Lark Sparrows, ♀ Black-throated Gray Warbler, and what I guess was a Grasshopper Sparrow in the Blomquist pasture.

28 Oct Didn't accomplish much today. Watched a littleat Plaque early, then walked up to the Arnold where I saw zilch. I did look in on ARF and Westgate enroute. After that Walter + I sampled acorns in Corral Viejo Canyon, Blomquist, and The Lab area

A Taricha on the road up to the Arnold, near corral field.

29 Oct Breakfast at Red House, then return to Berkeley

Journal

Hastings, Carmel River mouth + Pt. Pinos, Monterey Co, CA

(29 Oct) via the Carmel River mouth and Pacific Grove for a little birding with Pam + Walter. At the river mouth, we saw 2 Black-throated Gray warblers, 1 Orange-crowned warbler, 6 N. Phalaropes, 40 Yellow-rumped warbler, etc. At Pt. Pinos + Crespe Pond, 5 Black Turnstone, 1 Marbled Godwit, 1 Mew Gull, 30 Cal Gull, 2, Herring Gull, 1 Virginia Rail, 1 Eared Grebe.

16 Nov Drove down to Hastings with Nancy (going on Mammalogy Field trip), arriving about 1400. We had a good, situation-clarifying talk on the way down. Hastings is very green for this time of year, comparable to what it was like last winter in February. A very beautiful, brooding sort of day, with the clouds + rain beginning to roll in. I watch at School Hill and managed a complete census. Began to rain around 6 pm. Dinner at Red House with Russ, Judy, Pam, + Walter. Then to the school house for a Jim Patten slide show. Good company. Afterwards, I got my car stuck trying to drive up the road to the Cabin.

17 Nov First thing, I enlisted Rick Ostfield, Willy Bemis, and Tina Hargis to remove my car from the mud. Heard a calling American Goldfinch fly overhead. Puttered around in the morning, then finally went out to watch at Blom-one, Blom-two, and Gazebo. Cool, clearing + breezy. A good chicken dinner at Red House, complete w/ oatmeal cookies, Pattons Galapagos slides, then a good nights sleep.

Journal

Hastings Reservation, Monterey Co., CA

18 Nov Watched at Buckeye in the morning and got a good census. Returned to Berkeley, leaving alone about 1400.

22 Nov Thanksgiving, and I left Berkeley about 1030, arriving here 1400. Collected and sorted a few yellow pan bugs. Very still, warm afternoon. Heavy overcast, a few raindrops. Light rain as Walter, Pam + I have dinner at the Davises, with Ruth Griffin. Very pleasant.

23 Nov Went up to the Arnold with Walter where I accomplished almost nothing, then watched at Road 3. Worked on 200109 term paper in the evening.

24 Nov A little term paper work, Plague watching, and Mono Lake birding in the morning. Cal Thrasher, Purple Finch, Fox sparrow, were the good Hastings birds. Also sapsucker, Lark Sparrow, Song Sparrow, Say's Phoebe, etc. After Lunch, Walt + I met Dave Winkler, Suzanne Morse, David Gaines, and at Pt Pinos as part of the Mono Lake Big Day. I saw two new birds, Surfbird and Elegant Tern. Also Marbled Godwit, Whimbrel, Black Oystercatcher, Black Turnstone, Ruddy Turnstone, Willet, Sanderling, Brandt's Cormorant, Brown Pelican. After a short time there, we explored Robinson Canyon, seeing Bufflehead, Ruddy Duck, Coot, Great Heron, Ring-necked Duck

1979 Ronald L. Mumme

Journal

St. Petersburg Florida, Pinellas County

Dec 15 On the St. Pete count with Glen Woolfenden, Tom Barrett, Tom Huels, Henry Robertson, Jim Rodgers, et al. A pretty poor day overall, save for a good Marsh in the morning with Am. Bittern, Virginia Rail, and Mag. Frigatebird in the afternoon. Otherwise, very routine.

22 Dec N. Pinellas County, Florida

A very good count with Glen, Tom Huels, & Lee Snyder. The best birds were two Surf Scoters at Courtney Campbell, plus 15 Bufflehead. Also good things were 2 Hooded Merganser, 1 Cedar Waxwing, 3 Am. Bittern, 2 Short-billed Marsh Wren, 7 Osprey, 1 Bald Eagle imm., and a good warbler flock at Philippe Park, with Pine, Palm, Prairie, Orange-crowned, Yellow-throated, Black & White Solitary Vireo. A very good, fun count.

29 Dec USF Ecology Area, Hillsborough County, Florida

A half day on the Tampa CBC. Nothing exceptional, but John Post, Susan McKay & I did see Hairy Woodpecker, Pine Warbler, 2 Eastern Bluebirds, 2 Ovenbirds, 55 Common Snipe. The high point was watching a young Red-shouldered Hawk (see p. acct.) eat part of a green heron.

1979 Ronald L. Mumme

Melanerpes formicivorus

FORAGING DATA

Hastings Reservation

①	②	③	④	⑤	⑥	⑦	⑧	
20 Aug	1000	13	3 (juv. 500)	2	0	0	1	
20 Aug	1200	13	3 (juv 501)	3	0	0	2	
21 Aug	1730	12	1 (♂486)	11	0	1	6	(Valley Oak acorn)
22 Aug	1015	13	3 (juv 501)	11	0	0	3	(Valley × Blue Oak acorn)
22 Aug	1025	13	1	11	0	0	3	"
22 Aug	1035	13	3 (juv 500)	11	0	0	1	(Valley × Blue Oak acorn)
24 Aug	0955	24	2	2	0	0	1	
25 Aug	1105	17	2	11	0	0	1	(valley Oak acorn)
26 Aug	0810	21	1 ♂ 508	11	0	0	1	(Valley Oak acorn)
27 Aug	1030	13	3 (500)	11	0	0	1	
27 Aug	1100	13	1 (♂282)	2	0	1	6	Yellow Jacket (Hymenopteran)
28 Aug	1100	2	1 (♂252)	11	0	0	1	
30 Aug	1010	16/24	3 (497)	11	0	0	4	(Blue Oak Acorn) (Black Oak birds at Bianca)
30 Aug	1015	16/24	2 (♀320)	2	0	1	3	"
30 Aug	1050	23	1 (No bands)	11	0	0	3	(Blue Oak Acorn)
31 Aug	1100	26	3	2	0	1	1	
2 Sept	0700	15	1 (♂86)	11	0	2	3	
3 Sept	0710	15	1 (♂402)	11	0	2	3	
3 Sept	0710	15	2 (♀260)	11	0	2	3	
4 Sept	0845	2/1	1	2	0	2	3	(Buckeye birds at Chongo)
6 Sept	1030	13	1 (♂63)	11	0	0	1	(Blue Oak acorn)
6 Sept	1100	13	3 (juv 501)	2	0	1	1	
8 Sept	0940	27	2 (♀485)	11	0	0	1	Acorn type unknown
9 Sept	1000	23	1 (No bands)	11	0	1	3	Blue Oak acorn
17 Nov	1615	15	1 (♂402)	11	1 (new)	1	1	

1979 Ronald L. Mumme

Melanerpes ~~erythrocephalus~~ formicivorus

CALIFORNIA, Contra Costa Co, O.P. Pearson residence on Miner Road, Orinda

4 March Beth Braker and I stopped by the Pearson's house to check out ~~[illegible]~~ a group of Acorn woodpeckers that had moved into the canyon behind their house. According to Pearson, some birds appeared during December and began drilling storage holes in some dead stubs of a Blue Oak. The granary tree was in a shallow ravine, surrounded by Live Oaks + Buckeyes, ~~which~~ with an open, grassy area nearby. We estimated about 400 storage holes had been drilled, although most were very crude and appeared unfinished. The holes were small, and fairly evenly spread over a large area, so the effect was one of no part of the stubs looking like a "finished" granary. The bark had been flaked off (Pearson says by the birds) and the holes had been drilled in what appeared to be soft, partially rotting wood. Beth + I saw 2 birds, apparently sapsucking in a nearby Blue Oak, and Pearson said he had never seen more than 2 when they appeared in December.

18 March The Pearsons, Pete + Lois Myers, Mercedes Foster, Dave Winkler and I wandered over here ~~from~~ after having breakfast at the "Howards" where Pete + Lois were house sitting. O.P. Pearson said that someone had seen at least 3 birds simultaneously recently, although we heard just one or two. Also at least three birds in a different (?) group north of Howard's.

Melanerpes formicivorus

Buckeye — Hastings Reservation

26 June "Tried" to watch the nest that Walt found here yesterday, but had a tough time of it. The details are on the back. Basically the problem was that the birds didn't stay outside the hole long at all, so you had to be ready. Unfortunately, the small observation port on the portable hide meant you had to lean far forward to get a view of the birds coming, and that meant it took time to move over to the scope when the birds came. The bottom line is that I missed a lot of visits.

27 June Another nest watch day. Given the problems I had yesterday I started the watch from a rigged up half blind that afforded a better view of the nest. It became obvious that this was scaring the birds, so I broke off to move the blind to a better spot, and resorted to using it. The two halves of the watch are summarized on the back.

28 June A pretty good afternoon watch here. Still no ♀ for me to see, but some interesting things: ① ♂424 did much feeding and was the only ♂ to remove fecal sacs (He also roosted the last two nights, according to Walt and Larry). details are on the back of the ~~attaching~~ page here. Another interesting thing was on the initial feeding of the watch ♂424 entered the nest, stayed for a minute, then flew out carrying a large grasshopper! No fecal sac, that. Tough to figure that one out. ♂424 would often enter the hole for extended periods of time, sometime removing a fecal sac, sometimes not.

I returned to Buckeye in the evening to watch

26 June 1979 Buckeye 1330 - 1630 PDT 180 minutes

158.00 ♂ ?
236.00 ♂ 252, 2
240.00 ♂ ?
303.00 ♂ ?
303.00 ♂ 252, 2
303.00 ♂ ?
308.00 ? ?
310.00 ♂ 234, 2
311.00 ♂ 234, 2
313.00 ♂ ?
314.00 ♂ 252, 2
315.00 ♂ 252, 2
331.00 ♂ 252, 2
407.00 ♂ 234, 2
408.00 ♂ 252, 2
408.00 ♂ ?
424.00 ♂ 252, 2
429.00 ♂ ?

bird	n visits		food units
♂ 252	7	1-0 2-7 3-0	14
♂ 234	3	1-0 2-3 3-0	6
♂'s ?	7		–
? ?	1		–
	18		

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27 June 1979 Buckeye 0710 - 0925 and 0950 - 1120 PDT 135 + 9

813.00 ♂ 424 2
846.00 ♂ 234/3 at nest, didn't feed
848.00 ♂ 252/2 at nest didn't feed
912.00 ♂ 252/2 at nest, didn't feed
921.00 ♂ 252/2 } at nest, didn't feed
921.00 ♂ 234/3 }
925.00 suspend watch

0950.00 start watch
1015.00 ♂ 252 at nest with 3, didn't feed
1025.00 ♂ 252 3
1035.00 ♂ 252, 2
1036.00 ♂ 234, 2
1049.00 ♂ 252, 3
1108.00 ♂ 234, 2
1120.00 end watch

bird	n visits		food units
♂ 424	1		2
♂ 252	– (3)	1-0 2-3 3-0 at nest never fed	– (6)
♂ 234	– (2)	1-0 2-0 3-2 at nest, never fed	– (6)

bird	n visits	food units		at nest
♂ 252	3	1-0 2-1 3-2	8	1 (wit di
♂ 234	2	1-0 2-2 3-0	4	–

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28 June 1979 Buckeye 1430 - 1730 PDT 180 minutes

236. ♂ 424, 2
238 ♂ ?
251 ♂ 234, 3
301 ♂ 234, 2
303 ♂ 424, 3 (FS)
324 ♂ 252, 2
329 ♂ ?
331 ♂ 424, 2 (FS)
337 ♂ 252, 2 }
337 ♂ 234, 2 }
339 ♂ 424, 2
339 ♂ 234, 2
341 ♂ 234, 2
342 ♂ 234, 2
345 ♂ 424, 2
353 ♂ 424, 2 (FS)
358 ♂ 424, 2
368 ♂ 234, 2
405 ♂ 424, 3

406 ?? feeding
409 ♂ 234, 2
412 ♂ 234, 2
430 ♂ 424, 2 (FS)
430 ♂ 252, 2
432 ♂ 424, 2
453 ♂ 234, 2
456 ♂ 424, 2
515 ♂ 234, 2
517 ♂ 252, 2
523 ♂ 424, 2 (FS)
525 ♂ 424, 2
stayed in hole until 529

530 end watch

bird	n visits	food units		feralsc
♂ 424	13	1-0 2-11 3-2	28	5
♂ 234	11	1-0 2-10 3-1	23	0
♂ 252	4	1-0 2-4 3-0	8	0
♂ ??	2	–	–	0
? ??	1	–	–	–
	31		?	5
	(28 known)		(59 known)	

Melanerpes formicivorus

Buckeye — Hastings Reservation

(28 June) roosting. ♂234 roosted first, and I clearly saw his bands. No doubt. A second bird came in later, and I'm pretty sure that it was ♂424. I should have been able to make out the metal band if it had been ♂258, and I saw enough of the bands to suggest ♂424. Also he roosted there the last two nights, last night with ♂234 again (Larry fine).

29 June — A good watch here in the morning (details on back). 49 feedings in 3 hours was a personal record, although I still saw no ♀ at the nest. Only one good possibility of observing a dominance interaction, but nothing happened. While ♂252 was inside feeding, ♂424 arrived at the nest with a nice, juicy Tipulid. No calls, though, as ♂424 waited at the left of the hole for ♂252 to leave before entering to feed. Still ♂424 the only bird to remove fecal sacs.

30 June — No nest watch today, but I did take in roosting, and the repeat of 28 June occurred. ♂234 came in first, followed by ♂424. Both stayed in the nest, and both (as far as I know) roosted.

1 July — Roosting again. This time there was a bird in the hole when I arrived at 2040, and I flushed him. Later, ♂424 and ♂234 roosted, ♂424 entering first, ♂234 just after that. ♂424 looked out.

3 July — A successful nest watch here in the morning of a cool, breezy day. Same old story, ♂424 + ♂234 doing most of the feeding, ♂424 the fecal sacs, ♂252 some of the feeding, and no ♀♀ to be seen. Details on back.

29 June 1979 Buckeye 0810 - 1110 PDT 180 minutes

0810 start
0818 ♂234, 3
0818 ♂252, 3
0821 ♂234, 3
0821 ♂424, 2
0824, ♂234, 2
0827, ♂234, 2
0827, ♂252, 2
0830, ♂234, 3
0835, ♂252, 3
0836, ♂234, 2
0844, ♂424, 3
0850, ♂252, 2
0853, ♂424, 2 (FS)
907, ♂424, 2
0907, ♂234, 2
0919, ♂252, 2
0922, ♂424, 2
0924, ♂234, 2
0926, ♂424, 2 (FS)
0932, ♂234, 2
0934, ♂234, 2
0935, ♂252, 2
0936, ♂234, 2
0937, ♂424, 2 (FS)
0940, ♂234, 2
0940, ♂424, 2

0948, ♂252, 2
0956, ♂234, 2
0958, ♂424, 2 (FS)
0959, ♂234, 2
1000, ♂234, 2
1002, ♂234, 2
1004, ♂424, 2
1009, ♂424, 2
1011, ♂252, 2
1011, ♂424, 2 (Tipulidae)
1017, ♂234, 2
1023, ♂234, 2
1029, ♂424, 2
1031, ♂252, 3
1042, ♂252, 2
1053, ♂234, 2
1053, ♂424, 2
1055, ♂234, 2
1056, ♂234, 2
1101, ♂234, 2
1102, ♂234, 2
1108, ♂234, 2
1109, ♂424, 2 (FS)
1110, END WATCH

bird	n visits	food units		fecal sacs
♂424	15	31	1-0, 2-14, 3-1	5
♂234	24	51	1-0, 2-21, 3-3	0
♂252	10	23	1-0, 2-7, 3-3	0
	49	104		5

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3 July 1979 Buckeye 0835 - 1135 PDT 180 minutes

0835 start
0920 ♂252, 2
0920 ♂234, 2
0920 ♂424, 2
0955 ♂424, 2 (FS)
0955 ♂234, 2
0955 ♂252, 2
1008 ♂234, 2

1014 ♂424, 2
1020 ♂424, 2, (FS)
1030 ♂424, 2, (FS)
1038 ♂234, 2
1049 ♂424, 2
1057 ♂424, 2, (FS)
1057 ♂252, 2
1102 ♂424, 2

1103 ♂252, 2
1107 ♂424, 2 (FS)
1111 ♂234, 2
1111 ♂424, 2
1117 ♂424, 2 (FS)
1118 ♂234, 2
1128 ♂234, 2
1132 ♂424, 2 (FS)
1135 end watch

bird	n visits	food units		fecal sacs
♂424	12	24	1-0, 2-12, 3-6	7
♂234	7	14	1-0, 2-7, 3-0	0
♂252	4	8	1-0, 2-4, 3-0	0
	23	46		7

1979 Ronald C. Mumme

Melanerpes formicivorus

Buckeye — Hastings Reservation

4 July — It being Independence Day, I watched the nest here in the morning. Nothing particularly exciting, save for a real feeding frenzy by ♂234. The details of the watch are on the back.

5 July — More of the same in an afternoon nest watch here. Details on the back.

Also checked out the roosting situation. Larry was here 3 July and it was down to ♂424. Tonight, however, it was the usual twosome: ♂234 entered first, and ♂424 followed shortly thereafter.

6 July — Watched the nest here in the late afternoon, and things were fairly slow. Details on the back.

8 July — The usual morning nest watch. Won't be too many more, though, as one of the babies was sticking his head out of the hole. They must be fairly well fed though, because twice birds entered the hole to feed, then left without feeding. The babies weren't begging very vigorously at all. Saw one shot at a dominance interaction when ♂252 was in the hole after feeding when ♂424 arrived. When ♂252 looked out ♂424 faced away (out from hole). This doesn't make much sense considering who's doing the night roosting and who's doing the nocturnal roosting. Details of the watch are on the back.

9 July — A fairly slow morning nest watch here. Babies are sticking their heads out quite a bit, so I'd guess they will fledge the next couple of days or so. Details of

4 July 1979 — Buckeye — 0900 - 1200 PDT — 180 minutes

0900 start
0907 ♂252,
0909 ♂234,
0922 ♂424
0927 ♂234,
0934 ♂234
0939 ♂424
0948 ♂252

0954 ♂424, FS
1015 ♂234
1017 ♂424, FS
1034 ♂424, FS
1036 ♂424 FS
1043 ♂424 FS
1047 ♂234
1056 ♂252

1056 ♂424, FS
1113 ♂424, FS
1115 ♂234
1116 ♂252
1117 ♂234
1120 ♂234
1120 ♂234
1122 ♂234
1122 ♂234

1123 ♂424
1123 ♂234
1125 ♂234
1126 ♂234
1128 ♂234
1129 ♂234
1130 ♂234
1132 ♂234
1134 ♂424
1152 ♂252

bird	n visits	fecal sacs
♂424	11	7
♂234	18	0
♂252	5	0
	34	7

Couldn't get anything in the way of bolus size data. Birds were landing with their heads in the hole

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5 July 1979 — Buckeye — 1400 - 1700 PDT — 180 minutes

200.00 start watch
210 ♂234
212 ♂234
216 ♂424 FS
230 ♂234
236 ♂424 FS
240 ♂234
240 ♂424, 2, FS

244 ♂234, 2
244 ♂424, FS
248 ♂234
252 ♂424, FS
307 ♂424, FS
307 ♂234, 2
313 ♂252
325 ♂252

325 ♂424 FS
335 ♂424 FS
354 ♂234
354 ♂424 FS
356 ♂424 FS
410 ♂234
410 ♂252
417 ♂424 FS
428 ♂252

441 ♂424 FS
500 end watch

bird	n visits	fecal sacs
♂424	12	12
♂234	9	6
♂252	4	0
	25	12

---

6 July 1979 — Buckeye — 1455 - 1755 — 180 minutes

255 start
341 ♂234
354 ♂424
418 ♂252
431 ♂252
439 ♂424, FS

446 ♂234
446 ♂252
451 ♂252
503 ♂424 FS
503 ♂234
505 ♂234

506 ♂234, 2
511 ♂234
516 ♂234
517 ♂424, FS
518 ♂234
529 ♂252

536 ♂252
555 end watch

bird	n visits	fecal sacs
♂424	4	3
♂234	8	0
♂252	6	0
	18	3

---

8 July 1979 — Buckeye — 0850 - 1150 PDT — 180 minutes

0850 start
903 ♂234
903 ♂252
913 ♂252
913 ♂234, 3
918 ♂424
924 ♂234
924 ♂234
930 ♂234
936 entered ♂234, 2 didn't feed
955 ♂234
1000 ♂252
1000 ♂234
1009 ♂234
1009 ♂424

1011 ♂234
1013 ♂252 }
1013 ♂234 }
1015 ♂252 in hole, 2, didn't feed
1037 ♂424
1052 ♂234, 2
1056 ♂424, 2
1121 ♂234
1127 ♂234, 2
1129 ♂424, FS
1133 ♂234, 2 Tipulid 4 minutes outside before feeding
1137 ♂252 }
1137 ♂424, 2 } 424 faced away

bird	n visits	fecal sacs
♂424	6	1
♂234	14	0
♂252	5	0
	25	1

Plus (1 in nest didn't feed)
(plus one at nest, didn't feed)

Babies seemed well fed.
On one occasion each ♂234 + ♂252 entered the with food and left without feeding young. Ver- begging. Another occasion, ♂234 sat outside the hole w food (a size 2 Tipulid) for 4 min. before entering. Once ♂424 came with 252 sticking his head out. ♂4 faced away.

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Buckeye — Hastings Reservation

(9 July) the watch are on the back of this page.

Came back for roosting, and tonight is was ♂424 by himself. It is possible, however, that the young have already fledged, since I heard no begging noises from the nest, and ♂424 sat outside the nest for a long time without entering. I'll find out tomorrow.

10 July Well, the babies haven't fledged, but they might as well have considering how bad the afternoon watch was here: One visit in 3 hours. Very dull, but the "details" are on the back. I was getting the impression that there was only one baby in the nest, but I am quite probably wrong.

Back for roosting, it was again ♂424 solo.

11 July A pretty good morning watch here. Details are on the back. Again It seemed like only one nestling was in the hole, but he was a feisty little SOB. He often directed pecks at the heads of the ♂♂ feeding him, and he really walloped ♂424 once.

12 July No nest watch here today, so the young may have fledged. But I did struggle up for roosting, and once more it was ♂424 by himself. Whether young were still in the hole or not remains to be seen.

13 July Final nest watch at Buckeye today, as I watched the juvenile White-Red/M, White-Red/Black-Red (N) fledge. At 0852 he simply crawled out of the hole and sat there for a few minutes before hitching up to the top of the nest tree. At 0902 he flew off toward the

9 July 1979 Buckeye 0820 - 1120 PDT 180 minutes

0820 start
0835 ♂424, 3
0857 ♂424, 2
0907 ♂252
0907 ♂234
0934 ♂252
0934 ♂424
0938 ♂234
0944 ♂424, 2 (FS)
0954 ♂424, 2
1001 ♂424
1004 ♂252
1007 ♂424
1017 ♂234
1017 ♂252, 2
1018 ♂424
1027 ♂424
1039 ♂234
1042 ♂252
1048 ♂424
1120 end watch

bird	n visits	fecal sacs
♂424	10	1
♂234	4	0
♂252	5	0
	19	1

---

10 July 1979 Buckeye 1425 - 1725 PDT 180 minutes

332 ♂424 ♂424 1 visit 0 fecal sacs

---

11 July 1979 Buckeye 0825 - 1125 PDT 180 minutes

0825 start
911 ♂424
929 ♂234
929 ♂252
932 ♂234
939 ♂424 } "garrick" by 424 (below)
939 ♂234 }
943 ♂252, 2
1013 ♂424
1014 ♂234
1024 ♂234
1025 ♂252
1039 ♂424
1049 ♂234
1050 ♂252
1054 ♂234
1056 ♂424
1056 ♂234
1100 ♂234
1101 ♂424
1105 ♂424, (FS)
1105 ♂234
1107 ♂234
1108 ♂424
1109 ♂234
1111 ♂234
1113 ♂234
1125 end watch

bird	n visits	fecal sacs
♂424	8	1
♂234	14	0
♂252	4	0
	26	1

At 0939 ♂424 was feeding, ♂234 landed at the opposite side of the hole. ♂424 then erected his crest feathers, gave a quiet call that sounded like a "garrick" (but much quieter. He then flew off, and ♂234 fed. ♂234 did not call or display

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13 July 1979 Buckeye 0810 - 0910 60 minutes

0810 start ♂234, 2
0826 ♂234, 2
0852 juv, white-Red/M, white-Red/Blk-Red (N) fledges
0902 juv flies off
0910 end watch

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Buckeye Hastings Reservation

(13 July) granary, where some adults were waka ing (or at least in that direction. After his departure, the nest was empty, leading me to wonder if both babies did indeed fledge. The last several days it had always seemed like only one nestling was in the nest. I'll have to look for babies up here to find out.

14 July Starting a group watch from the granary at 0645 ♀ Metal / L Blue, L Blue / White-Red (????) shows up in granary at 0825. Drums briefly, so at first I think her an intruder, but she stays, and wakas to ♂424 when he comes to the granary for stored insects. She definitely belongs here, but I don't know who she is (She also is in wing molt). Have to check with Walt later. Perhaps another old Chongo-ite, the old breeding ♀? We'll see. Drums again at 0840. Preening, panting in granary, one flycatching sortee. 0845, ♂424 back, ♀ flies to him, both waka she assuming hunched posture. ♂252 here now also, extracts acorn. Holy Bananas!! The ♀ here is the Plaque ♀482?! What the hell is going on?? It sure looks like she owns the place. She was banded last year at Plaque (or earlier this year). 0900, Things getting more confusing all the time. ♀483 Red - D Blue appears on the scene, and I think she might have chased mildly ♀482. Say, I just noticed the similarity in numbers. Did the Plaque ♀ originate from Buckeye? That might

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Buckeye — Hastings Reservation

(14 July) make sense, although a Chongo origin might also make sense, since the 3 ♂♂ here are all from Chongo. I wasn't positive that ♀483 chased her. Now I think I recall that Walt ambushed both ♀482 and ♀483 up here last winter, just prior to ♀482 moving to Plague. Pretty neat. Back home visiting Mom, I guess, although Mom might have chased her. 0915, ♂252 doing a little drumming in the granary. 0917, after ♂252 flies off, ♂424 drums, 0930, no babies seen, but I think I heard at least one in the general direction of the nest tree.

19 July Start watch from hide 0815, at granary. 1000, still zero. Not the day to watch here. Going to walk around. 1030, a juvenile (didn't see bands) NE of nest tree. Flushed a couple of other birds, too. End 1035

28 August Start watch from hide at granary, 0815. 0940, Finally, an ad ♂ (face pattern suggests ♂424) at granary, karriting, couldn't see bands. 1000, ♂252 Metal/Yellow-L Blue, works acorn in granary (FD). 1010 ♂252 drums, for no apparent reason. 1045 still not a good day to watch here. Have heard at least 3 birds calling to the NE of the granary, including at least one (or two?) babies. Going to look around.

4 Sept Checked the holes here 0830. 3 birds, all banded and all in ♂♂ plumage (adult or babies) seen flycatching from the Chongo granary. Suspect they were Buckeye birds.

19 Sept Check the holes here. No nest.

27 Oct Start watch 0845. 0850, ♂252 Metal/Yellow-L Blue

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Buckeye — Hastings Reservation

(27 Oct) stores an acorn. 0855 a second bird briefly in the granary. 0905 ♂234 L Blue / White - D Pink stores. 0908 ♂234 stores. ♂424 DBlue-Orange / DBlue-Orange with acorn piece. 0912 ♂252 (S). 0913 ♂234 (S) 0916 ♂424 (S), 0917 ♂234 (S). 0935 ♂424 (S). 0942 ♂234 (S) 0943 J (?) 504 white-red / DBlue-white narrow (S); 0943 ♂252 (S); 0945 ♂(?) 504 (S). 0946 ♂234 (S). 0950 ♂234 (S). 0952 ♂252 (S) ♂424 working on a storage hole; 0958 ♂234 (S) 1058 ♂234 (S), ♂424 (S); 1005 ♂234 (S), ♂424 (S), ♂252 (S), ♂234 (S), ♂504 (S). 1012 ♂504 (S) 1018 ♂234 (S)

1030, ♂252, ♂424 now working on storage holes

Much fussing around, less storing. Many acorns (almost all Q. douglasii (?)) stored. Juv. 504 a confirmed ♂. Don't know if ♀483 is still with us.

→ Storing ♂252 [5] ♂424 [4] ♂234 [12] ♂504 [4]

After about 1030, storing of new acorns declined, the ♂♂ began to work on transfering acorns and refurbishing storage holes. ♂504 much less prevalent in this aspect. I recorded only about half of all the storing. From 1015-1030, nearly continuous, and I couldn't keep up.

Birds were poking around in a cavity (just proximal to the "high ladder hole" and ♂234 entered briefly on one occasion. Don't know if it's serious. End watch 1200.

18 Nov Start 1130. ♂252 chases Nuthatches twice. ♂234 also here briefly. 1205, ♀483 Red-DBlue / Red DBlue " " here!

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Buckeye — Hastings Reservation

(18 Nov) About time, as she was last seen 14 July! ♂424 DBlue-Orange (DBlue-Orange) also shows up. All we need is ♂504 for a complete census. 1255, ♂504 " (White-Red/M) / DBlue-wht (N) shows up. In fact, all five family members together in tree, working on stores, transferring acorns, feeding, poking, etc. End 1300

Melanerpes formicivorus

Plaque — Hastings Reservation

25 March — Start watch 1350. Both ♂ #473 L Green / White and ♀ #482 L Blue / white - Red seen. Much karrit-cut calling. The ♀ moved here recently from Buckeye. I heard the ♀ give three or two garricks (urks?) Three more garricks in succession while the ♂ 50m away, karrit-cutting. 1425 ♂ continues karrit cuts at a distance. 1450 Have heard no waka's from these two, although they "duet" in karrit-cuts (3 separate bouts, since I've been watching. So far no close approach to each other.

3 July — Start watch 1545. The past 2 days I've wasted about 7 hours looking in vain for the Plaque fledglings. Pam says that she saw them about 1 wk ago on Blomquist knoll. Right now I'm looking at the ♀482 Metal / L Blue in the trees NE of the gasoline barn. ♂473 also seen briefly, L Green/White bands seen. Still no sign of the babies. Over by MacRoberts, I later saw 2 adults (Plaque?) chase an intruder.

5 July — More of same, starting 0730. At 0900 ♀482 excavating hole in Valley Oak N of Plaque tree (nest tree). 0915 she urrks (garricks?) twice, then stops excavating. Over by MacRoberts, she did a good bit of probing + pecking in one of the Blue Oaks, garricking twice, then returning to the excavation hole at 1005, garricking 3 times. ♂473 also around. No sign of babies. ♀ stops excavating at 1020.

19 Sept — Big Surprise!! While sitting in Walter's office I noticed the Plaque birds flycatching from the Valley Oak nest tree

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Plaque Hastings Reservation

(19 Sept) then seemingly to fly to the nest hole!! After further watching, it became obvious: They were feeding babies!! It was late (1800) when I hustled up to the nest hole, to find two babies, about 15-20 days old (near banding age). These guys really pulled a fast one on us, nesting for nearly a month right under our noses, without anybody noticing. Walter had gone to Berkeley today, and I was unable to find his Pesola or calipers, or wing rule, so I did nothing but open the nest and count the babies. Interestingly, the ♀ (presumed 482) actually attacked me as I climbed up to the nest, making 4 close passes at my head.

28 Oct Sitting around the labs waiting for Walter, I saw both babies 521 Black-Yellow/Metal and 522 white/D Green-L Green (N). also presumed ♂ 473 ?/?/Metal.

24 Nov Lots of storing activity at 0845! Both babies here, 521 + 522, and both have remarkably white eyes. Both storing with some enthusiasm.

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Melanerpes formicivorus

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Hastings Reservation

19 June I watched here about an hour in the afternoon, seeing no birds. The territory looks abandoned, although Pam Williams says she occasionally sees a bird here while working on the Orioles.

2 July Tried to watch roosting here without success. No birds, no karrits, no nothing. I checked the two ravine holes, and likewise saw nothing. I have a feeling that these birds have split.

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Melanerpes formicivorus

1500 Hastings Reservation

27 March 1530 start watch from road. Only 2 ♂♂ seen, ♂ #297 Orange / Yellow - D. Green, and #298, L Green - D Green / Metal. No other birds seen. Both working around in granary tree, some pecking + probing in thin, higher branches (after sap?) End 1555.

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1800 Hastings Reservation

11 May Start watch 1430. Was here earlier in the day and thought I saw an unbanded ♀. Checking it out, I was correct: An unbanded ♀ and ♂476 Black/L Green the only birds here. Both very tight, and they "go everywhere" together. Saw one of the birds supplant an intruder from top of granary Valley Oak. (Int. flew south) Birds spent most of their time eating buds/catkins (latter more likely) in a late-greening mistletoe infested Blue Oak toward the 1500 knoll, and catkin-eating/flycatching far to the south of granary, much preening at both places. End 1545

20 June Start watch 1645. ♀193 D Pink/metal and ♂347 Metal/L Pink - D Blue hanging out together in the granary. A third bird, not seen well enough to sex or "band", was also seen. End watch 1830

23 June Start watch 1845. Three birds seen, ♀193, ♂347, plus ♂476 Black - L Green. I'm starting to feel pretty good that this is a complete census. End watch 1935.

1 Sept Checked the holes here. Also saw no birds.

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Lower Haystack — Hastings Reservation

25 March Walter + I watched a "mini-revolution" in progress up here today. The lone ♂, (Orange #307 RWS) had been joined by an unbanded ♂ and ♀. ♂ #307 was chasing the other ♂ pretty vigorously around the granary tree, the unbanded ♂ occassionally giving chatter calls. The ♀, however, was giving emphatic high-intensity (wing spread) waka calls. She seemed very tame, and stayed put in the granary tree when Walt and I approached to count stores. By this time the unbanded ♂ had disappeared, about 1 hour after initial observation. The ♀ seemed very "attached" to the granary tree, eating several acorns, seldom flying from it, waka calling frequently with occasional garricks (urks).

I watched roosting in the evening and saw only one bird roost in the hole in the granary tree.

26 March Up here from 9:30-1030 and saw only the ♀. No ♂♂, banded or unbanded.

21 June A nest watch here in the afternoon, seeing the unbanded ♀ and ♂ 307. Early in cycle, the ♀ was doing most of the incubating. Didn't see the third new ♂ from last year, ♂ 461. Details on back.

22 June Totally blew an attempted nest watch here this afternoon. I called it a total failure, scaring birds away by moving in the hide, missing a ♀ that entered, etc. I wont even pretend I did a watch.

30 June A not-bad nest watch here in the afternoon (details on back. The only real high point was that I saw

21 June 1979 Lower Haystack 1645 - 1845 PDT 120 min

445.00	nest empty	7.20
452.20	♀630 enters, down	77.10
609.30	♀630 leaves, } relief	—
609.30	♂307 enters, down	1.45
611.15	♂307 head out	.30
611.45	♂307 leaves nest	1.45
613.30	♀630 enters, down	2.00
615.30	♀630 head out	.15
615.45	♀630 leaves nest	5.15
621.00	♀630 enters, down	24.00
645.00	♀630 still down, end watch	120 min

Nest occupied	105.40
down	104.55
up	.45
Nest unoccupied	14.20

bird	n	In hole	down	up
♀630	3	103.25	103.10	.15
♂307	1	2.15	1.45	.30

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30 June 1979 Lower Haystack 1345 - 1645 PDT 180 minutes

145.00	nest empty
155.00	♀630, 1, enters
157.00	♀630 leaves, ♂307, 1, enters
157.30	♂307 leaves
158.30	♀630, 1, enters
230.00	♀630 leaves
234.00	♂307, 2, enters
253.00	♂307 leaves
315.00	♀630, 1, enters
400.00	♀630 leaves, ♂307, 2, enters
404.00	♂307 leaves, ♀630, 1 enters, leaves immediately
406.00	♀630, 1 (oats), enters
412.15	♀630 leaves
416.45	♀630, 1 (oats), enters
424.00	♀630 leaves
430.30	♂307, 2, enters
445.00	♂307 still in nest watch ends

Nest occupied	130.00
down	130.00
up	—
Nest unoccupied	50.00

bird	n visits	n inc. visits	In Hole	Down	Up		Food Units
♀630	6	5	92.00	92.00	—	1-6 2-0 3-0	6
♂307	4	4	38.00	38.00	-	1-1 2-3 3-0	7
	10	9	130.00	130.00			13

Melanerpes formicivorus

Lower Haystack — Hastings Reservation

(30 June) ♀630 harvesting wild oats near the nest tree. She would perch close to the ground on some fallen branches, then dart out to pluck the oats. At first I thought that she was just flycatching unusually close to the ground, but I then saw her hull one at an anvil and then take it to the nest. I saw her feed the babies oats twice

1 July A good nest watch in the morning. Nothing especially exciting, although I did see all three of the birds gathered on the secondary granary briefly. They did a lot of poking, probing, etc., and may have been storing oats or insects.

2 July Watched at the nest here in the afternoon, details on the back. Nothing particularly interesting, although ♀630 did do a bit of oat-harvesting as she had on 30 June. This bout was not as extensive, but she did appear to feed the nestling oats on one occasion.

11 July Walt + I ambushed here early this morning, but once again the unbanded ♀ (630) gave us the slip. We did manage to catch the 1st yr. bird, ♂461, which was molting his heavily worn plumage. Incidentally, Sievert, he did not scream once, even though his presumed father is here, and he is an outcome of probable inbreeding.

13 July Watched roosting here, the night after Nancy reported all three birds roosting in the nest. Tonight it was ♂307 plus another bird of unknown sex + banding status.

14 July Watched the nest here in the afternoon, and things went

1 July 1979 Lower Haystack 0840 - 1140 PDT 180 minutes

0840.00	nest empty	
0849.45	♀630, 1, enters	9.45
0854.30	♀630 leaves, ♂307, 1, enters	4.45
0859.00	♂307 leaves, ♀630, 1, enters	4.30
0924.15	♀630 leaves, ♂307, 1, at nest but does not enter	25.15
0936.00	♂461, 2, enters	11.45
0954.00	♂461 leaves, ♂307, 2, enters, leaves immediately (FS)	18.00
0954.45	♀630, 2, enters, leaves immediately (FS)	0.45
0956.00	♀630 enters, 1,	1.15
0958.30	♀630 leaves, ♂307, 2, enters	2.30
1004.30	♂307 leaves, ♀630, 1, enters	6.00
1006.30	♀630 leaves, ♂461, 1, enters	2.00
1007.30	♂307, 2, at nest ♂461 does not leave, ♂307 flies off	1.00
1014.30	♂461 leaves, ♂307, 2, enters	7.00
1016.30	♂307 leaves (intruder chase)	2.00
1029.00	♀630, 1 enters	12.30
1044.30	♀630 leaves, ♂307, 1 enters, leaves immediately	15.30
1056.45	♂307, 2, enters	12.15
1107.00	♂307 leaves, ♀630 enters, 1	20.15
1130.30	♀630 leaves	23.30
1139.00	♂307, 2, enters, leaves immediately (FS)	8.30
1140.00	End watch, nest empty	1.00

Nest occupied 122.15
Up —
Down 122.15

Nest unoccupied 57.45

bird	n visits	n inc. visits	In Hole	Down	Up	Food units	Fecal Sacs	At nest
♀630	7	6	73.30	73.30	~~2.67~~ 1.14	1-6, 2-1, 3-0 = 8	1	—
♂307	7	4	22.45	22.45	1.71	1-2, 2-5, 3-0 = 12	2	2
♂461	2	2	26.00	26.00	1.50	1-1, 2-1, 3-0 = 3	0	—
	16	12	122.15	122.15	—	23	3	2

2 July 1979 Lower Haystack 1315 - 1615 PDT 180 minutes

115.00	nest empty	
133.30	♀630, 1, enters	18.30
135.00	♀630 leaves	
	♂461, 1, enters, leaves	1.30
136.15	♀630, 1, enters	1.15
140.00	♀630 leaves	
	♂461, 1, enters	3.45
144.15	♂461 leaves	
	♀630, 1, enters	4.15
212.15	♀630 leaves	
	♂461, 2, enters	28.00
218.00	♂461 leaves	
238.00	♀630, 1, enters	5.45
239.30	♀630 leaves	
	♂307, 2, enters, leaves (FS)	1.30
243.15	♀630, 1, enters (oats)	3.45
303.00	♀630 leaves	
	♂307, 2, enters	19.45
305.30	♂307 leaves	
	♀630, 2, enters, leaves	2.30
306.00	♀630, 2, enters	.30
323.00	♀630 leaves	
325.00	♀630, 1, enters	17.00
327.30	♀630 leaves	
	♂461, 1, enters	2.00
333.00	♂461 leaves,	
	♀630, 1, enters	2.30
358.00	♀630 leaves	
	♂461, 1, enters, leaves	5.30
354.45	♀630, 1, enters, leaves	
415.00	end watch	20.00
		1.45
		20.15

bird	n visits	n inc visits	In Hole	Down	Up	Food units	Fecal Sacs
♀630	10	8	94.30	94.30	-1.2	1-8, 2-2, 3-0 = 12	0
♂307	2	1	2.30	2.30	-2.0	1-0, 2-2, 3-0 = 4	1
♂461	5	3	15.30	15.30	-1.2	1-4, 2-1, 3-0 = 6	0
	17	12	132.30	132.30		22	1

Nest unoccupied 67.30

Melanerpes formicivorus

Lower Haystack *Hastings Reservation*

(*14 July*) pretty well. Details are on the back.

14 July 1979 Lower Haystack 1555 - 1725 150 minutes

355 start watch
416 ♀630, 2
427 ♀630
427 ♂307, 2
430 ♀630, (FS)
437 ♀630
440 ♂307, 2
443 ♀630
443 ♀630, 1
446 ♀630
456 ♀630, 2
456 ♂307, 2
511 ♀630, (FS)
514 ♀630,
523 ♀630
525 ♂307, 2
537 ♀630
549 ♀630, 1
555 ♀630
555 ♂307, 2
600 ♂307, 2
600 ♀630, 2
608 ♀630 (FS)
608 ♂307, 2
613 ♀630
615 ♀630
615 ♀630
625 end watch

bird	n visits		bolus sizes		fecal sacs
♀630	19	1.60	n = 5	1 = 2 2 = 3	3
♂307	7	2.0	n = 7	1 = 0 2 = 7	0
	26				3

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Melanerpes formicivorus

Haystack - Blomquist Hastings Reservation

26 March Start watch 0900. Overcast, gray day. 0935. a single ♂ seen so far, but no activity. 1010 beginning to suspect that nobody else is around. A few kanrit-cuts from the ♂ (presumed #173 Orange - Black), but not much else. (cool, overcast, breezy) End 1010

27 April Start watch 1100. ♂ #173 Orange / - Black here (saw him ~~the~~ extract and eat a stored acorn) plus the ♀ from Blom-one, ♀ #484 B Pink - Orange / Black Orange - Metal only bands I saw on ♂. End 1230. Looking fairly tight, probable pair-formation in progress

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Blom-one — Hastings Reservation

7 July Start watch 1615. An adult ♀ (didn't see bands) and two babies, #495 Yellow-DPink/Yellow, and I think (not positive) #494 White-Red/Metal, hanging around to the southwest of the granary. Later, in Live Oak Sap tree, #495 again and positive #496 Mauve-L Green. Can't say 495 is certain yet. 1715. Yes, 495 is certain! saw White-Red/Metal on left leg. All three babies alive and well! ad ♀ is 478, I presume. Quick look at bands looked like DBlue-Orange/DBlue-Orange. End 1745.

10 July Start watch 0930 ad ♂ + ad ♀, plus two babies, one of which was #495 Yellow-DPink/Yellow. #495 was pecked several times by the adult male, which my quick look suggested was ♂479 DBlue/DBlue-Yellow (N). Later #494 White-Red/Metal. No dominance stuff seen.

20 July Start watch 0730. On my arrival I flushed 5 birds, some from the sap tree (live oak), others from the live oak perch to the west. Set up hide at saptree. 0740, Anna's Hummer in the sap tree. 0750 ♂479 Metal/DBlue-Yellow (N) in saptree, SAPSUCKS. Another bird (ad?) chases Nuttall's woodpecker. 0830, juv 495 + 496 seen sapsucking (Yellow-DPink/Yellow and Mauve/L Green). also perhaps a third baby, too, but I didn't see. A hint of a dominance interaction when #495 seemed to peck at #496 as they flew to a nearby perch. Wasn't sure, though. 0920, juv NB oriole, sapsucking! Have to tell Pam. Actually, it could be a ♀. Hard to tell. ♂479, 496 chase oriole 0950. Overall not defending tree much, 496 sapsucks a fairly good amount. End 1000

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Blom-One Hastings Reservation

11 Aug Start watch 1030. ♀ seen as I sat down near Live Oak sap tree. 1130 Zilch -- not coming to sap tree.

21 Aug Start watch 0830. Birds! Lots of them, picking Green Acorns off the Live Oak on the big knoll, 150 meters north of the granary. Some chasing, too, so probably more than one group is working the tree. Saw bands of left leg of an ad ♂, I read as Light-Dark/Metal, can't square that with anything likely (maybe ♂518 from Gazebo?) 0930 After chasing these guys around some, it may be that the odd birds were from the "Sunken Valley Oak" territory in Corral Viejo Canyon. At least, that was the general direction that I saw 3 birds (an adult ♂ and two unbanded juveniles) take after leaving the Live Oak knoll. I saw the ad ♂ harvest a Valley Oak acorn and feed it to one of the babies, ever seeing my first bit of juvenile dominance. Too bad they were unbanded. One bird, perhaps the ad ♂, seemed to be banded. 0945. Confirmed, sunken oak did have a nest this year! Flushed a NB baby, and he flew directly to the granary.

31 Aug Start watch 1100. An ad ♂ and a juvenile flycatching in the granary area. 1150, Juv 495 Yellow-D Pink/Yellow (Metal/Yellow) here, much flycatching, And he seems to be in full adult ♂ (!) plumage!! eye very white. Juv. 494 White-Red/Metal, also coming along, but eye still dark; Appeared to beg from 495! No sign of anybody else. 1220

→

8 Sept Nothing seen here in passing.

27 Oct Start watch 1440. Two of the babies here, and both are ♀♀! ♀494 White-Red/Metal and ♀495 Yellow-D Pink/Yellow.

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Blom-One Hastings Reservation

(27 Oct) The latter was the bird I thought was a ♂ as of 31 Aug. Oh, well. ♂479 DBlue/DBlue-Yellow(N) also here.
Lots of acorns stored here, no real storing frenzy by the birds. ♀494 even ate a stored acorn. End 1650.

17 Nov Start watch 1245. Lots of acorns stored. 1300, a banded Nuthatch here I read as White-Metal or Metal White on the ~~left~~ right leg. 1350, here again, a ♂ Nuthatch Metal/White, Yellow/Yellow (?). 1410, 3 birds finally here, ♀494 Red-White/Red White-Red/M; ♂479 /DBlue/Yell(N) and 496, Mauve/LGreen, which is a ♀!! That makes all three of the babies here ♀♀. With the two Gazebo babies ♀♀ also, there must be a concentration of estrogen on Blomquist Ranch (just kidding)! ♀494 chased a Junco from stores. Nuthatches unmolested (no wickers around). End @ 1615.

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Gazebo — Hastings Reservation

20 July Start watch at Gazebo nest, 1030. Walt had just banded the unbanded ♂ here this morning, catching him at dawn. 1110, ♂ which I'm pretty sure was unbanded, feeds nestlings. ♀485 Mauve / Black-White (N) also around, NB ♂ flycatching, feeding nestlings. Crouched down low to hawking perch, hitched to other side, when Red-shouldered Hawk flew over. No sign of the newly banded ♂, undoubtedly still freaked out. ♂480 must be gone. Walt saw three birds at roosting last night, so all now accounted for.

21 ~~July~~ Aug Start watch 1100: ♂ 517 L Pink / Metal here. 1200 That's all

8 Sept Start 0930. Birds hanging out west of granary. At baby (!) seen, I think 510 M / Yellow-White, but not sure. ♀485 Mauve / Blk-wht (N), Juv 509 metal / L Green - D Green, and ♂516 metal / Yellow - ? all definitely seen minutes later. Working acorns in Valley Oak adjacent to fence and dirt road. ♂517 L Pink / metal also here. Juv. 510 is still not definite. I could have easily confused 509 with him. 1030. Bingo Juv 510 (I read bands as Metal / Or - wht) here. Briefly in same tree with a NB ♂. End watch 1045.

17 ~~Sept~~ Nov Watched here awhile, seeing 3 birds but reading the bands of just one, ♀509 L Green - D Green / Yellow

20 July 1979 Gazebo 1035 - 1150

1035 start
1110 ♂ NB, ?
1130 ♀ 485, 2
1146 ♀ 485, 2
1147 ♂ NB, 2
1150 end

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Westgate — Hastings Reservation

23 Feb Start watch from Live Oak near gate on SW side of Road, 1610 hrs. Unbanded ♀, (#574), Plus ♂#58, M/Light Green. Also saw a ♂ beg from #58. Could only see that bands were very dark, probably (?) ♂467 D Green/LG-DG? ♂#58 + ♂#258 BP-W/M sapsucking in blue oak behind sycamore west of gate sycamore End 1750

25 Feb Start watch 0730. Four birds seen, ④ unbanded ♂, ① unbanded ♀, ③ ♂#58 L Green/L Green, Metal/L Green, and ♂258 ② B Pink-white/Orange, B Pink-White/Metal. Activity was concentrated in sap oak behind Sycamore granary west of the gate sycamore. I also saw what I interpret to be submissive behavior, begging-like "Mickey-Mouse" calls in the presence of another bird. The results were thus

dom	♂58	♀574 submissive	♂238 (5)	♂521	
♂58	—	didn't see it	5	3	8
♀574	no see	—	didn't see it	1	1
♂238 (5)		no see	—	didn't see it	0
♂521			no see	—	0
	0	—	5	3	

Sort of interesting results. I'll have to check group history, and see what MacRoberts says about Mickey Mouse call. Interesting that ♂521 gave call when ♀574 landed in sap tree. Never heard ♂58 call, although he was frequently in tree with ♂238, and to a lesser extent ♂521

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Westgate Hastings Reservation

25 June Start watch at 0800. Yesterday Walt had found a nest with three dead 15-day old babies at School Hill west, and he presumed that the nest had belonged to Westgate. He had seen Westgate birds fooling around up there a few weeks ago. 0850 Unbanded ♂ briefly in sycamore west of the gate sycamore. 1000, Three birds seen, NB ♂, NB ♀, and another male which I think is missing most of his left foot and leg!! Perhaps it is ♂58, since ~~that~~ he was banded by the MacRoberts with their too small metal bands. Indeed, ♂58's metal band was on the lower left leg!! Hmmm. I saw this mystery bird perched on a horizontal limb nearby briefly, and I think the L Green band remained on his left leg, but I could be wrong. In fact, I could be wrong about all this. I'll have to ask Walt what the characteristics of the School Hill west nest were. Perhaps Westgate holes were unsuitable for a one footed bird, hence the move to School Hill west!! Interesting idea, but probably total bull shit. Need to watch here some more to check this out. End 1045.

Checking with Walt later, School Hill west appears to be a legitimate group. Oh well, that blows my theory.

26 June Watched roosting here tonight, seeing three birds roost in the "west" sycamore. The hole was the top hole of an ~~[illegible]~~ near-vertical stub in the center of the tree. The stub had three roost holes, and some storage holes. One bird roosted much earlier than the other two.

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Westgate — Hastings Reservation

2 August Watched roosting again here tonight, seeing three birds roost in the same hole as 26 June. One of the birds was almost certainly ♂58, the legless wonder, as one of the birds had obvious difficulties getting into the roost hole. It was fairly obvious that that bird was operating without a left leg.

26 August Roosting again. One bird already in the hole when I arrived, but two other flew in later, the last one in operating without a left leg. However, after some scuffling in the hole, the legless bird came out, then tried 5 times or so to struggle back in to the hole, unsuccessfully. He then flew off and did not return

28 Oct Start watch 0830. Three birds here, one ♂, one ♀, and a third bird (sex?). The ♂ I saw was almost certainly ♂58. He was sitting crosswise on a branch, as if his left leg was missing. Couldn't see the bands on the right leg. 0850, In gate sycamore, a ♀ which I read as D Blue-yellow/D Blue-Yellow (!!?) It may not have even been banded

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Road 1 Hastings Reservation

19 June Tried to watch roosting at the nest last night (nobody) and tonight. Tonight somebody with a white band on its left leg went in for a while at dusk before flying out again later. Nobody roosted. The bird that was there briefly was presumably ♂486, Although I desperately need to update my field list.

16 July Start watch by diddling around near the granary. A ♀ with left bands Metal / White - (Red?) or some dark color hanging out in the granary, open-wing waka to a ♂. Drummed once. ♀269 from Road 3? Somebody garricking around here, too. Moving into hide at 0905. 0930, ♀269 confirmed, DBlue-White (N) / White. ♂ Black-Red / Wht-Red, M / Black-Red (?), could this be ♂486? Didn't see bands well, but it was something like that. Two birds seen briefly sapsucking in Live Oak behind (toward the road) the granary. Again, are Live Oaks preferred sap trees at this time of the year? 0955 ♂294, BPink / DBlue-Yellow seen in sycamore, cowering against it as a Red-tailed Hawk flew about 20-30 meters overhead. 1030 ♀444 DBlue-White (N) / Orange from Arnold 3 Lands here briefly, in granary. Not chased, but no other birds around. End watch 1040.

21 Aug Start watch 1745. ♀269 M / Wht - DBlue, ♂486 M / DBlue-Orange hanging around in dead sycamore next to road. ♂486 ate green acorn (FD notes). A third ♂ here briefly 1745, presumably ♂294.

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Finch — Hastings Reservation

26 May I watched the nest (with eggs) here this morning, but the data I generated is, I think, questionable. I was set up much to close to the nest, and I was obviously disturbing the birds. Details of the watch on back.

I Also took a watch in the afternoon, the results of which are below ~~(back on back?)~~

FINCH ~~[illegible]~~ ~~PDT~~ 1430 - 1740 PDT / 190 min

20.00	Nest empty	9.30	
29.30	♂63 enters hole	10.30	11.20
10.00	♀293 at hole	.50	
10.50	♂63 head out	.10	
11.00	♀293 leaves	.15	
11.15	♂63 back down	3.30	.25
14.45	♂63 head out	.15	
15.00	♂63 back down	.10	
15.10	" " head out	.50	
16.00	" " back down	13.40	
29.40	" " " "	4.05	
3.45	" " " "	22.30	
26.15	" " " "	.15	
26.30	" " " "	5.00	
1.30	" " " "	.30	
2.00	" " " "	8.30	
10.30	" " " "	2.15	
12.45	" " " "	.15	
13.00	" " " "	1.10	
14.10	" " " "	1.50	
16.00	" " " "	1.00	
17.00	" " " "	4.50	
21.50	" " " "	.20	
22.10	" " " "	8.05	
0.15	" " " "	.25	
0.40	" " " "	.15	
0.55	" " " "	1.25	
2.20	" " " "	.20	
2.40	" " " "	2.05	
4.45	" " " "	.35	
5.20	" " " "	2.00	
7.20	" " " "	11.50	
19.10	♂63 head out	1.50	
21.00	♂63 leaves nest	3.00	
24.00	♂66 enters, down	10.15	
4.15	♂66 head out	3.15	
7.30	♂66 back down	19.10	
26.40	♂66 head out		
28.30	♀293 at nest leaves -		

2.00	♂66 back down 2.15
4.15	♂(?) at nest —
4.15	♂(?) and ♂66 leave nest 8.45
13.00	♂(?) enters nest 12.00
25.00	♂(?) head out 1.00
26.00	♂(?) back down 4.00
0.00	♂(?) in hole, end watch

Nest unoccupied	21.15
Nest occupied	168.45
up	28.40
down	140.05

bird	n	In hole	down	up	at hole
♂63	1	111.30	92.25	19.05	—
♂66	1	40.15	31.40	8.35	—
♀293	-	-	-	-	2/1.00
♂(?)	1	17.00	16.00	1.00	1/nil

26 May 1979 Finch 0715 - 1015 PDT 180 minutes / 3 hours

0715.00 ♂ (?) head out		15.45
0730.45	♀ 293 enters, ♂ leaves	3.15
0734.00	♂ 282 at nest, leaves with ♀ 293	5.45
0739.45	♂ 63 at hole, leaves	10.00
0749.45	♀ 293 at hole leaves	27.15
0817.00	♂ 63 at hole	2.45
0819.45	♂ 63 leaves	3.15
0823.00	♂ 66 enters nest, down	2.00
0825.00	♂ 66 head out	28.40
0853.40	♂ 66 leaves	4.50
0858.30	♂ 63 at nest	.30
0859.00	♂ 63 enters, down	2.30
0901.30	♂ 63 head out	2.45
0904.15	♂ 63 back down	1.55
0906.10	♂ 63 head out	1.35
0907.45	♂ 63 back down	3.30
0911.15	♂ 63 head out	2.00
0913.15	♂ 63 back down	2.55
0916.10	♂ 63 head out	.50
0917.00	♂ 63 back down	3.40
0920.40	♂ 63 head out	1.05
0921.45	♂ 63 back down	1.45
0923.30	♂ 63 head out	1.30
0925.00	♂ 63 leaves	—
0926.00	♀ 293 at hole leaves	33.00
0958.00	♀ 293 at hole	.20
0958.20	♀ 293 leaves	16.40
1015.00	end watch, nest empty	
		180 minutes

Nest unoccupied		104.20
Nest occupied		75.40
up		58.25
down		17.15

	n	In hole	down	up	at ho
♂ 63	1	26.00	12.00	14.00	3/
♂ 66	1	30.40	2.00	28.40	—
♀ 293	1	3.15	3.15	—	3/
♂ 282	—	—	—	—	1/
♂ (?)	1	15.45	0	15.45	—
		75.40	17.15	58.25	3.

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Finch — Hastings Reservation

6 July Start watch 1115 Lots of action and lots (at least 3) of babies around. The only one I was able to read the bands on was 501, Yellow-Metal. Also saw ♂63 Green-Black/Green-Black peck the heck out of one baby after it begged persistently following feeding.

7 July Back here in the AM. Only one babies bands read, 499 ~~[illegible]~~ Metal/L Green-D Blue. Four Adults seen, ♀293 White/Orange-L Green, ♂63, ♂66 D Pink/L Pink, and ♂282 Metal/Red-Tan. The first three fed babies as I watched. Lots of frantic flycatching.

11 July Start watch 1615 from steep hillside of Arnold, overlooking the entire territory. Great View, good light, but no birds. Only ♀293 Metal/Orange-L Green seen. Plus a nice view of a Band-tailed Pigeon. End 1745

16 July A quick look here produced ♂282 ~~[illegible]~~ Metal/Red-Tan, and ~~[illegible]~~ ♀444 D Blue-White (N)/Orange, apparently just passing through on her never-ending shuttle between Road 1 and Road 3.

18 July Start watch from Road, 0800. 0820, a juv. in the spindly Valley Oak, perhaps 502. Thought I saw metal on upper left. 845. Hooray! #500 Red/L Green still here! Birds seem to have a sap tree (Live Oak, of course, with attendant Anna's Hummingbird) up on Poison Oak Hill. ♀293 & ♂66 seen here. 0945 moving toward road 3, 499 eating baby acorn, I think fed to it by ♀. ♂63 feed juv 500, insects.

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Finch Hastings Reservation

(18 July) All these last hurried notes were taken 40m south of the Finch bridge in a couple of stubs of a sycamore on the S side of the road ♀293, ♂63, ♂66 + ♂282 all seen in it, along with juv. 500 + 499. Note who fed who: ♂63 → 500, ♀293 → 499. At one point, 499 flew to 500 (or where 500 was perched, and open-winged waited, sat in the same perch for 20 seconds or so, but I saw no dominance interactions. End 1100 ~~Seem to be sappin, from several (?) of the Live Oaks around the Valley Oak near Finch~~

20 Aug Passing by at 0920. ♂66 Red / L Blue-white here. Other birds, including some babies, heard nearby. 0935, ♂282 Tan-Red / Tan-Red, and an adult ♀ (293?) also here. ♀293, more or less confirmed, Metal / ?. 1000 Juv #500 Red / L Green still alive. See foraging notes. Later, a bird of unknown status seen plucking green acorns from a ~~Valley~~ Blue Oak that was absolutely loaded. 1200 well up on PO Hill, I stumbled upon a Live Oak sap tree, just oozing with sap. Juv. 501, Yellow / Metal, L Green / Yellow working it, and scolding me like crazy in the process. #501 eye is already beginning to lighten. He had numerous opportunities to chase a WB Nuthatch, and later a plain Titmouse, out of the sap tree, but he never did. Anna's Hummingbirds, of course, also all around the tree. End 1245.

22 Aug Startwatch 0945. Juv 501 L Green / Yellow in Blue Oak that is absolutely loaded with Acorns. Tree is along creek, 40m upstream from bridge. Juv. 501 does not forage optimally. He tries several

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Finch Hastings Reservation

(22 Aug) times in several (about 5) different places to harvest one of the green Blue Oak acorns before he succeeds. Twice I watched him pluck leaves, then twist off the entire branch, only to have the branch and acorn(s) fall. He finally got one that he could yank off. FD 1030 Juv 500 Red/L Green seen, working and eating a green blue oak acorn, in an anvil perch of the big Valley Oak near the Blue Oak. ♂66 and ♀282 also in Valley Oak, 1050, a third baby, almost certain was 502 (D Blue-L Blue / D Blue-L Blue) also eating a green ~~Valley~~ Blue Oak acorn. Four birds (an ad ♂, 3 babies) were all perched together on an anvil, all working acorns. 1055. 2 birds fly up toward sap tree on PO hill. ♂282 Tan-Red / Tan-Red seen in top of Valley Oak, also flies off toward sap trees. 1115 NB ♂ + ♀ in Valley Oak, nobody around to chase them. Making themselves at home, both eat bits of acorn left on one of the anvils. ♂ drums very furtively once. Both Fly off at 1122. 1127 Now some chasing!! Not much else happens, save 2 Accipiter cooperi cruise through at 1145. Where are ♂63 and juv 499? End at 1210.

27 Aug Start watch 0950. Juv 500 Red/L Green in Valley Oak. ♀283 Metal/ and ♂66 D Pink/L Pink show, too. 1100, 3 adults in sycamore toward Rd 3: ♂66, ♀283, and ♂282 Tan-Red/Tan-Red. Looks bad for ♂63. 1125 Hey, Juv 499 D Blue/L Green-D Blue, Metal/L Green-D Blue still OK! End 1145

6 Sept 1030. At long last ♂63 Green-Black/Green Black here, working acorn (FD) ♀293 Metal/Or-L Green, ♂282 Tan-Red/Tan-Red M/Red-Tan, juv 500 Red/L Green Red/L Green,

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(6 Sept) juv 499 M/LGreen-DBlue, juv. 501 Yellow/Metal also come to the Valley Oak perches S of the bridge. End watch 1120.

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Road 3 Hastings Reservation

12 May I took a two-hour nestwatching shift from 1600 to 1800. Walt checked the nest before I started, and he saw 3 eggs in the hole. The details of the watch are on the back.

Also attemped to see which ♂ roosted, but I was unsuccessful. One bird came fairly early, followed by another which perched outside. The two exchanged chatters before both flew off. As it was getting dark, one returned. I have no idea who anybody was.

6 July Cruised by here looking for babies. Both 490 Black-Yellow/Metal and 491 D Blue-Yellow (N)/L Green (reversed) are here and doing OK. I even saw #491 do a little flycatching. Lots of ♀♀ attending the young, although I saw little feeding. ♀444 D Blue-White (N)/Orange for sure, ♀265 D Blue/Yellow-L Blue for sure, ♀383 Yellow-D Green/Yellow for fairly sure, and one ♀ that seemed like it had to be ♀446 L Blue-Red/Red L Blue. The "Red" part seemed like it was equal in width to the L Blue portions. I'll have to check with Walt or Larry, whoever, I saw that bird feed 491. I saw #490 + 491 together only once briefly, so I didn't catch any dominance interactions. Too Bad!

7 July Start watch from along road, near creek, at 0810. Nothing much happening. Birds flycatching in distance. End 0830.

15 July Watched roosting here, seeing 7 birds roost in two separate holes of the sycamore. Drawing on the back shows the holes. More than 7 could have roosted.

Start 1453 hrs (1553 daylight savings)

0	nest empty	
28 · 20	♀ 265	enters nest
1 · 30	♂ 184	enters hole
1 · 35	♂ 184	head out
1 · 40	♂ 184	leaves hole
1.45	♀ 265	head out
2 · 05	♀ 265	back down
18 · 00	♀ 265	head out
18 · 35	♀ 265	leaves nest
23 · 05	♂ 184	enters nest
29 · 15	♂ 184	head out
1 · 15	♂ 184	back down
5 · 45	♂ 184	leaves
5 · 45	♀ 265	enters nest
12 · 30	♀ 265	head out, backdown immediately
18 · 05	♀ 265	head out
21 · 45	♀ 265	back down
2 · 20	♀ 265	head out
2 · 55	♀ 265	leaves nest
15 · 25	♂ 184	enters nest
9 · 40	♂ 68	arrives at nest, does not enter chatter calls with ♂ 184
10 · 00	♂ 184	leaves nest
10 · 10	♂ 68	leaves nest (never entered)
13 · 0 end	nest unoccupied	
133 min	end	1606 (1706)

Summary

Time watched		133 min
Nest unoccupied		42 min
Nest occupied	up	7 min 10 sec
	down	83 min 50 sec
	total	91 min

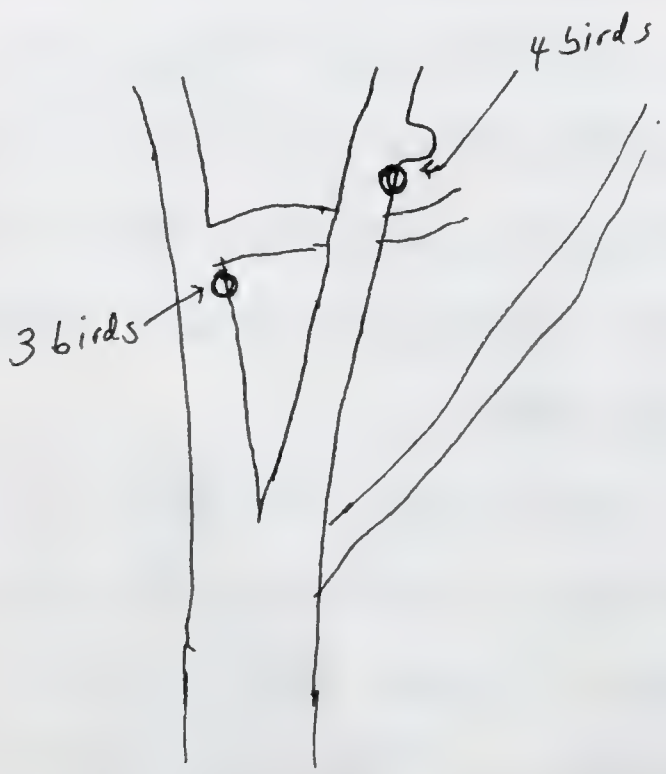
♂ 184

Times in nest	3
Total Time	43 min 30 sec
Time head out	2 min
Time head down	41 min 30 sec

♂ 68 briefly outside nest

♀ 265

Times in Nest	2
Total Time	47 min 30 sec
Time head out	5 min 10 sec
Time head down	42 min 20 sec



Roosting 15 July 1979

View from road SE of sycamore. I was parked next to the large Valley Oak.

More than seven birds could have roosted, as the moment I arrived I saw a bird enter a hole.

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Road 3 Hastings Reservation

16 July Here just for a few seconds in the morning, just long enough to see juv. ~~490~~ 491 L Green / D Blue - Yellow (N) and ♀383 Yellow - D Green / Yellow, Yellow - D Green / Metal.

17 July Also here briefly, 1730 - 1830. However, saw both babies 490 + 491, ♀265 D Blue / Yellow - L Blue, ♀446 L Blue - Red / Red - L Blue, and ♀383. Birds really seem attached to the Valley Oak toward Finch from the granary. Also seem to be doing some sapsucking from Live Oaks (again!) up on PO Hill, but I'll have to check on that some more

18 July Watching here at at Finch from hide, simultaneously. 1100 Black - Yellow / Red (juv. 490) fed insect by ♂68. Both juv. (490 + 491, ♀383, ♀448, ♂68 here ♀265 also. 1125, ♂68 feeds 490 again, insects. End 1140. Birds hanging out in the Valley Oak in between the granary and Finch Creek. The oak is very close to Finch territory, because where I set up the hide (N side of road) I can watch Rd 3 and Finch birds (in a sycamore, 50 m from Road 3 Oak). Rd 3 birds doing some sapsucking in at least 2 of the Live Oaks (what else?) around the Valley Oak. Anna's hummingbirds around, too. Back here at 1730. First thing I saw a bird do was to harvest a very tiny Live Oak Acorn. 2 ♀'s chase a flicker at 1745. 1747, ♀444 confirmed here, completing census except for ♂184 who I ~~might~~ have seen earlier. ♀444 I saw at road 1 two days earlier. Yessir!! ♂184 White - Black / Black white OK!! 1800, ♂68 feeds juv. 490! Complete census! End 1810.

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Road 3 Hastings Reservation

20 Aug Start watch from the sap area near Finch Creek, where birds were always hanging out in mid-July. Nuttall's Woodpecker, Anna's Hummingbird seen in one of the sap trees (Live Oak) but no wickers. I suspect birds are now eating Green Acorns (Finch birds doing that earlier). A few calls heard in the direction of the granary: 1130 Finally, juv 491 L Green/D Blue - Yellow seen in sap tree, but I do not know for sure if he was sapsucking.

22 Aug Watched roosting here, seeing 7 birds roost in the "left" hole, (where 3 birds roosted 15 July). Thus, the group is still very much intact, with the possible exception of one bird. However, they certainly are making themselves scarce. Walked around here some earlier in the day without hearing a peep.

25 Aug A successful ambush in the "left" hole, catching 6 birds (I thought I had seen 7 roost the previous evening).

23 Nov Start watch 1415. ♂184 Wh-Bl/Bl-Wh M/Bl-Wh here, appears to "guard" the granary about 20 minutes. Also one of the fall babies, J526 Wh-Y/Wh-Y, plus a ♀ which I suspect (saw some yellow) was ♀383. Wasn't sure. One bird spent several minutes in one of the roost holes. End 1615.

25 Nov Start 1000. Flush 3 birds as I arrive. 1010, ♀265 DBlue/Y-LBl Metal/Black-White In Valley Oak, scanning. ♂184 and Juv 526 White-Yell/Wh-Yel also around. Some flycatching on this nice sunny morning. 1130, ♂68 DBlue here briefly. ♂184 working on a storage hole.

1979 Ronald L. Mumme

Melanerpes formicivorus

School Hill — Hastings Reservation

27 March Start watch at 1350 on sunny breezy afternoon after morning and previous afternoon + night of hard rain. ♂#86 L Pink/metal seen 1430, lands briefly in granary tree, proceeds to thin, spindly blue oak to east, sapsucks. 1445 chases a hummingbird from sap tree. 1450 I guess he's still alone. No other birds around. End 1500

27 April Start watch 0830. ♂ #86 Mauve/Mauve, is of course, still around, but also ♀ #260 White/Park Blue, formerly of 1800 fame. They look pretty cozy, and seem to be a definite pair. Lots of friendly wakas. ♂ sapsucking from same blue oak as 27 March. End watch 0930

11 May start watch 0830 (PDT). Incredible continuous flycatching! ♂86 Mauve/Mauve, ♀260 White/D Blue, and ♂ 402 Yellow/D Pink all seen. Seemed to be sticking together pretty tightly, moving together, etc. Both ♂♂ were seen to peer into nest holes, ♂ 86 in the "lower" Blue Oak and ♂402 twice in the "upper" Valley Oak hole. End 1030

1630 -- while sitting at 1500 with Nancy, saw 3 HW way up on School Hill, in a crooked Blue Oak. I charged up there, thinking that they might be 1500 birds at their mysterious roost hole. Alas, it was only the entire School Hill contingent (♂86, ♂402, ♀260) I did see ♂402 drum once (in the dead Blue Oak), and when the ♀ flew off, ♂86 followed immediately, ♂402 several seconds later, after the brief drum

Melanerpes formicivorus

School Hill — Hastings Reservation

24 May Took a nest watch up here for 2½ hours this afternoon, details on reverse. ♀260 did most of the incubating, and I never did see ♂86 go to the nest during the watch. ♂402 didn't do a whole lot.

When I returned for roosting, ♂86 entered the nest at 2005 before flying out at 2035, Lots of shifting, flying in and out of the nest late, and I never saw a bird actually roost. Might have missed it.

25 May Another nest watch up here in the morning, not realizing that the tape recorder was fouled up. A more or less wasted 2½ hours. My general impression was that ♀260 incubated fairly steadily, and although ♂402 + ♂68 did take short bouts, their contribution was much smaller.

At roosting, one bird in the nest, at least one bird at the low (Blue Oak) hole, and no birds in the middle (Valley Oak) hole.

1 Sept This morning an "intensive" group watch here. Yesterday Walt found evidence of the first fall nest, 2 eggs in the regular old valley Oak nest hole. With egg laying in progress, here are my notes:

0612: Nest checked, 2 eggs. Nobody roosted in nest.

* 0716: ♀260 enters nest, stays 7 seconds, leaves. Large bulge (egg?)

24 May School Hill 1515 - 1745 PDT 150 minutes (2½ hours)

1515.00 ♀260 head out	17.30	Nest occupied	93.50	
1532.30 ♀260 back down	26.00	down	75.10	
1558.30 ♂402 at nest, ♀260 leaves		up	18.40	
1600.10 ♂402 enters, down	1.40	Nest unoccupied	56.10	
1603.40 ♂402 head out	3.30			
1604.50 ♂402 leaves hole	1.10			
1623.00 ♂402 enters hole, down	18.10			
1644.40 ♂402 leaves hole	21.40			
1721.00 ♀260 enters nest, down	36.20			
1745.00 ♀260 still in hole down	24.00			
	150 minutes			

	In hole	down	up
(2) ♀260	67.30	50.00	17.30
(2) ♂402	26.20	25.10	1.10

Melanerpes formicivorus

School Hill Hastings Reservation

(1 Sept) prominent in cloacal area. 0719: All three birds perched in upper branches of Valley Oak granary: Orioles chattering nearby.
0730: ♂86 flies off; ♀260 + ♂402 together; 0731: 86 waks returns, ♂402 flies off, ♂86 3m from ♀260. ♀260 looks exhausted: 0745,
* ♀260 flies to Blue Oaks at N end of Field, immediately followed by ♂402, waking. ♂86 follows 20 sec. later.
* 0754: Check nest: Three eggs!! ♀260 laid egg in 7 seconds! Laying time was 0716.

2 Sept 0655: 3 birds together in Valley Oak in woods at west edge of field: 0719 ♂402 + ♂86 chase scrub Jays, return. ♀260 above 2 ♂♂. 0722: ♀260 flies down hill to N end
* of field, followed first by ♂402, then ♂86. 0726: All 3 return to Valley Oak: Lost track: 0743, 3 birds in Valley Oak by path at N end of field (in woods): 0744, ♀260 flies
* west down hill, followed first by ♂86, then ♂402.
0830: 3 Birds at School Hill B, Strangers: Unbanded ♀, Unbanded Juvenile, plus a banded ♂. I read left leg as L Blue (?)/Metal
0850: School Hill birds appear, chase "B" intruders: Busy Scrub Jay: Red/Metal/L Blue/L Blue (or Mauve/Mauve) (Woolfenden style)
0856: All 3 SH birds in B granary: 0858; ♀260 flies west, ♂86
* follows at 0900 (♂+♀ waka), then 15 sec later ♂402 follows (more wakas). 0929: ♀260 flies to granary at SH B, followed
* by both ♂♂, ♂402 first! 0932, ♀260 flies off, ♂86 follows first, then ♂402.
1055: ♀260 looking out of nest hole. ♂402 had been outside hole for about 5 min, before flying off at 1055.
* 1103 ♀260 + ♂86 fly out of nest hole. Were in cavity

Melanerpes formicivorus

School Hill — Hastings Reservation

(2 Sept) together, while ♂402 not!! Together at least 8 min.
1120, ♀260 flies to Valley Oak at base (North) end of field, near
* blue Oak roost tree, not followed by ♂♂. 1129, Returns to
where ♂♂ were.

1948: Roosting, 3 birds in a tight "pack" zip past
Again at 1950.

3 Sept 0655, School Hill B; All 3 birds in granary. 0704, ♀260
flies off, followed first by ♂86, then ♂402: All Return, start
working acorns. ♂♂ approach to within a few inches. 0709: ♂86
* flies east down hill, followed by ♂402. ♀260 left alone
in granary. 0711, ♀ follows ♂♂. 0720, ♂ kestrel
harasses woodpeckers. All 3 birds back in granary.

0809, All 3 birds in main granary, upper branches. 0820,
♂ kestrel harrasses birds. 0820, ♂402 flies to nest tree: To
hole at 0823. Enters hole at 0824. 0827, Looking out, 0829
* Returns to granary + other birds. 0831, ♀260 flies off, followed
first by ♂402, then ♂86. 0835, All back in main granary
0856, ♀260 enters nest, 8 seconds, flies out. 0909, ♀260
Joins ♂♂ in granary, waits. ♂402 flies to, enters nest. 0913,
* ♂86 flies off to east, followed by ♀260. waits. 0915, ♂
402 leaves nest, flies to main granary (alone). 0916, ♂402
* joins ♂86 and ♀260 in Blue Oaks to east.

0925 Check nest, still 4 eggs, 3 intact.

4 Sept Flashback city! a nest watch here around midday. details on
back. Birds still travelling in pack. When ♀260 left the nest
after her incubation bout, both ♂♂ immediately flew to the
tree she went to.

4 Sept 1979 School Hill 1010 – 1310 PDT 180 minutes

1010	♂ (?) in hole, flushed out	110.45
1200.45	♀260 enters, down	17.15
1218.00	head out	.40
1218.40	back down	.50
1219.30	head out	1.20
1220.50	back down	9.25
1230.15	head out	1.30
1231.45	back down	6.00
1237.45	head out	.45
1238.30	back down	3.45
1242.15	head out	.30
1242.45	back down	1.00
1243.45	head out	2.00
1245.45	♀260 leaves nest	24.15
1310	end watch	180.00

Nest occupied	45.00
down	38.15
up	6.45
Nest unoccupied	135.00

bird	n visits	In hole	down	up
♀260	1	45.00	38.15	6.45

Melanerpes formicivorus

School Hill — **Hastings Reservation**

5 Sept Watched the nest here in the morning, ♀260 doing most of the incubation. Tried to watch roosting, too, but was unable to tell which bird roosted. (very dark, @ 2000 hrs).

6 Sept Another 3-hour nest watch, this one in the afternoon. Details on back. Again up here for roosting, this time with success. I put the hide
* → closer to the nest, and I was convinced that ♂86 Roosted. I never really saw any bands, but his Mauve/Mauve combo is not what you would call distinctive. I feel that there was enough light to see ♂402 Yellow band if he had roosted. Furthermore, the face pattern suggested ♂86.

7 Sept Another AM nest watch. Details below. 0730–1030 PDT 180min

0730.00	nest empty	38.15
808.15	♀260 enters	16.30
824.45	" head out	.30
825.15	" leaves nest	1.15
826.30	♂86 at hole, no enter	12.30
839.00	♂86 leaves	.45
839.45	♀260 enters	5.15
845.00	" leaves	11.00
856.00	♀260 enters	.30
856.30	" out	.45
857.15	" down	4.30
901.45	" out	.45
902.30	" down	16.00
918.30	" out	6.30
925.00	" down	5.00
930.00	" out	1.45
931.45	" down	5.00
936.45	" out	2.15
939.00	" down	5.30
944.30	" leaves nest	4.00
948.30	♂86 at nest, no enter	24.00
1012.30	" leaves	8.00
1020.30	♀260 enters	9.30
1030 end		

bird	n visits	In Nest	down	up	at nest
♀260	4	80.15	67.45	12.30	—
♂86	-	-	-	-	2(36.30)

Nest occupied	80.15
down	67.45
up	12.30
Nest unoccupied	99.45

5 Sept 1979 School Hill 0825 - 1125 PDT 180 minutes

0825	♂86 looking out		33.00
0858.00	♂86 leaves		47.00
0945.00	♀260 enters		4.00
0949.00	♀260 leaves		5.20
0954.20	♀260 enters		4.40
0959.00	♂86 at hole, no enter		
	♀260 leaves		8.45
1007.45	♂86 leaves		1.00
1008.45	♂402 enters		6.15
1015.00	♂402 leaves		5.00
1020.00	♀260 enters		6.15
1026.15	♀260 head out		.30
1026.45	♀260 back down		2.15
1029.00	" head out		.15
1029.15	" back down		4.45
1034.00	" head out		.30
1034.30	" back down		2.00
1036.30	" head out		.15
1036.45	" back down		4.15
1041.00	" leaves nest		5.30
1046.30	" enters nest		
1048	♂86 at nest, doesn't enter		10.30
1057.00	♀260 head out		.15
1057.15	♀260 back down		3.45
1101.00	♀260 leaves		9.00
1110.00	♀260 enters		6.30
1116.30	" head out		1.00
1117.30	" back down		4.30
1122.00	" head out		2.00
1124.00	" back down		1.00
1125	end watch, ♀260 incubating		

Nest occupied	98.25
down	60.40
up	37.45
Nest unoccupied	81.35

bird	n visits	In hole	up	down	at hole
♀260	5	59.10	4.45	54.25	–
♂86	1	33.00	33.00	–	(2) 10.00
♂402	1	6.15	–	6.15	–
		98.25	37.45	60.40	

6 Sept 1979 School Hill 1430 - 1730 PDT 180 minutes

1430.00	♀260 in hole, head out		5.00
1435.00	♀260 leaves		91.15
1606.15	♀260 enters nest		1.15
1607.30	♂86 at hole, no enter		3.15
1610.45	♂86 flies off	15.15	10.45
1621.30	♀260 head out		.15
1621.45	♀260 back down		4.45
1626.30	♀260 head out		1.45
1628.15	♀260 back down		6.00
1634.15	♀260 head out		1.15
1635.30	♀260 back down		3.30
1639.00	♀260 head out		10.30
1649.30	♀260 back down		12.00
1701.30	♀260 head out		1.45
1703.15	♀260 down		2.30
1705.45	♀260 out		.30
1706.15	♀260 down		1.15
1707.30	♀260 out		.15
1707.45	♀260 down		5.30
1713.15	♀260 out		2.15
1715.30	♀260 down		4.15
1719.45	♀260 leaves nest		10.15
1730	end		

bird	n visits	In hole	up	down	at hole
♀260	2	78.30	23.30	55.00	–
♂86	–	–	–	–	1 (3.15)

Nest occupied	78.30
down	55.00
up	23.30
Nest empty	107.30

Melanerpes formicivorus

School Hill — Hastings Reservation

(7 Sept) Also here for roosting, and again ♂86 (I even saw the
→ Mauve/Mauve bands) roosted in the nest alone.

8 Sept Another nest watch. Details on back. And another
roosting, and again, it was ♂86 alone that roosted
→ in the nest (n=3).

10 Sept Watched the nest here in the late Am - early afternoon.
Compilation on back. Also here for roosting, and it
→ * again appeared that ♂86 roosted.

11 Sept Nest watch, on back.

17 Sept Nest watch, compiled below. 1630 - 1800 PDT 150 min
Eggs hatched this morning!!

1630.00	♀260	head out	35.15	
405.15	"	back down	1.45	
407.00	"	out	10.00	
417.00	"	leaves nest	29.00	
446.00	"	enters ①		
		♂86 at nest	.40	1.40
446.40	♀260	leaves	1.00	
447.40	♂86	flies off	39.20	
527.00	♀260	enters ①	1.00	
528.00	♀260	leaves	3.00	
531.00	♀260	enters ②	7.00	
538.00	"	head out	8.30	
546.30	"	down	7.40	
554.10	"	out	1.30	
555.40	"	down	.40	
556.20	"	out	3.40	
600.00		end watch		

Nest occupied	77.40
down	18.45
up	57.55
Unoccupied	72.20

bird	n visits	In hole	up	down	Bolus size		at hole
♀260	4	77.40	57.55	18.45	1-2 2-1 3-0	1.33	-
♂86	-	-	-	-	-		1 (1.40)

8 Sept 1979 School Hill 1315 - 1615 PDT 180 minutes

1315.00	♂86 ~~[illegible]~~ down		10.00
1325.00	♂86 head out		29.30
1354.30	♂86 leaves nest		.45
155.15	♀260 enters nest		15.45
211.00	" " head out		1.30
212.30	" down		6.30
219.00	" out		1.30
220.30	" down		4.15
224.45	" out		.15
225.00	" down		3.30
228.30	" out		.15
228.45	" down		2.45
231.30	" out		.45
232.15	" down		2.15
234.30	" out		1.45
236.15	" down		7.00
243.15	" out		1.00
244.15	♀260 down		4.15
248.30	♀260 leaves nest		5.15
253.45	♂86 at nest		2.15 / 7.30
256.00	♂86 enters nest		11.45
307.45	♂86 out		15.15
323.00	♂86 leaves nest		.45
323.45	♀260 enters nest		27.45
351.30	" out		3.00
354.30	" down		10.30
405.00	" out		2.00
407.00	" down		7.00
44.00	" out		.15
44.15	" leaves nest		.45
415.00	end watch		

bird	n	In hole	down	up
♀260	2	103.45	91.30	12.15
♂86	2	66.30	21.45	44.45
	4	170.15	113.15	57.00

Nest occupied 170.15
~~[illegible]~~ down 113.15
up 57.00
Nest empty 9.45

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10 Sept 1979 School Hill 1040 - 1310 150 minutes

1040.00	♀260 in hole, lookout		5.30
1045.30	" down		5.45
1051.15	" out		4.45
1056.00	" down		6.00
1102.00	" out		2.30
1104.30	" down		13.00
1117.30	" out		3.30
1121.00	" down		4.00
1125.00	" out		1.30
1126.30	" down		3.00
1129.30	" out		3.15
1132.45	" down		4.15
1137.00	" out		1.00
1138.00	" down		3.30
1141.30	" out		1.00
1142.30	" down		3.00
1145.30	" out		3.15
1148.45	♀260 down		3.15
1152.00	" out		2.30
1154.30	" down		2.30
1157.00	" out		1.00
1158.00	" down		4.30
1202.30	" out		.30
1203.00	" leaves nest		31.00
1234.00	♀260 enters		12.00
1246.00	" out		.30
1246.30	" down		23.30
1310.00	watch ends, ♀260 down		

bird	n	In hole	down	up
♀260	2	119.0	~~[illegible]~~ 88.15	30.45

hole unoccupied 31.00

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11 Sept 1979 School Hill 0810 - 1110 180 minutes

0810.00	♂86 lookout		28.00
838.00	" down		16.30
854.30	" out		6.10
900.40	" down		6.50
907.30	" out		3.00
910.30	" leaves		1.30
912.00	♀260 enters		6.10
918.10	" out	8.00	
926.10	♂402 at nest	.30	16.10
926.40	♂402 leaves	7.40	
934.20	♀260 down		9.10
943.30	" out		1.00
944.30	" down		14.40
959.10	♂402 at nest, leaves ♀260 leaves		45.50
1045.00	♀260 enters		17.10
1102.10	" out		.40
1102.50	" down		.20
1103.10	" out		.30
1103.40	" down		6.20
1110.00	end watch		

bird	n	In hole	down	up	at hole
♀260	2	72.10	53.10	19.00	–
♂86	1	60.30	23.20	37.10	–
♂402	0	–	–	–	2 (.30)

Nest occupied
down 76.30
up 56.10
Nest empty 4

Melanerpes formicivorus

School Hill — Hastings Reservation

19 Sept — A pretty good nest watch here: details on back.

16 Nov — Walked up here at 1500, and immediately flushed the two fall babies, ~~[illegible]~~ 523 DBlue/white-DBlue and 524 DGreen-BPink(N)/white, out of the trees at the northern end of the field. 1520, ♂86 LPink/metal flies in + perches in the main perch in the Valley Oak. 1600, ♂86 still there, and a ♀, which I'm certain is ♀260 by face pattern, perched in the VO just uphill from the exclosure. A baby squee-trtr · from the upper VO within the exclosure. 1605, ♂402 Yellow/D Pink flies to where ♂86 is, some weak wakas. ♂402 has acorn. J523 flies to him and starts to beg. ♂402 flies to "the other" perch 2 meters away, places acorn in anvil. Nothing happens. Complete census, so end 1620.

19 Sept 1979 School Hill 0935 - 1235 PDT 180 minutes

0935.00	♂86 in, down	2.00
0937.00	♂86 out	12.00
0949.00	" leaves	5.10
0954.10	♂86 enters (1)	2.50
0957.00	♂86 out	10.00
1008.00	♂86 down	15.50
1023.50	" out	7.10
1031.00	" leaves	11.00
1042.00	♂86 enters (2)	.40
1042.40	♂86 leaves	
1046.40	♂402 at nest, (2)	4.20
1047.00	♀260 enters (1)	
1048.20	" out	1.20
1110.10	♂86 arrives, (2)	21.50
	♀260 leaves	22.30
1132.40	♂86 leaves (2)	29.50
1204.30	♂86 enters (1)	2.00
1204.30	♂86 leaves	21.30
1226.00	♀260 enters (1)	
	♂402 at nest leaves (2)	.50
1226.30	♂86, (1) at nest	
1226.50	♀260 leaves	
	♂86 enters (2)	.30
1227.20	♂86 leaves	
1228.36	♀260 enters (1)	1.10
1231.30	♀260 out	3.00
1232.30	" down	1.00
1235	end watch.	2.30

bird	n Visits	In Hole	down	up	Food units		at nest
♀260	3	30.30	7.40	22.50	1-3 2-0 3-0	(3)	–
♂86	6	75.20	46.20	29.00	1-1 2-3 3-0	(4)	–
♂402	0	0	–	–	—		2 (1-0, 2-2, 3-0)
	9	105.50	54.00	51.50	1-4 2-3 3-0	(7)	2

Nest unoccupied = 74.10

1979 Ronald L. Mumme

Melanerpes formicivorus

School Hill West — Hastings Reservation

(3 Aug) Start watch 0830. A ♂ enters the Black Oak nest hole, stays a few seconds, then leaves. A NB ♀ the follows, looks in the hole, then flies off. Still at least 2 birds here. 1000, checked the nest hole, it was empty. For some reason I didn't think

27 Aug Roosting here, and finally, 2 birds roost in the Black Oak hole.

1979 Ronald L. Mumme

Melanerpes formicivorus

Black Oak — Hastings Reservation

25 May — In a brilliant move on my part, I came up here around 1200 for nest watching, and promptly watched the wrong hole for 1½ hours before I discovered the correct hole. In two hours, I saw only ♂ 426 Black/Orange-White, take about a 1 hour incubation bout. Also saw another bird harvest + eat an acorn. Watch details on back.

27 May — Up for another nest watch on a chilly, breezy day. Details on back

19 June — On my first day here as a "summer resident," I took a dull nest watch up here today. Walt had checked the nest the day before, and found two healthy babies. The "details" of the watch are on the back. Also saw ♂102 White/Yellow briefly at the granary.

20 June — Another nest watch, this from 0600-0945. It started off very dull, but from 0820-0900 there was an incredible feeding frenzy, much flycatching, etc. A ♀ carrying food came to the hole, but left without feeding (♀427 DBlue/Red). Details of the watch are on the back. Also saw an intruding ♀ mildly chased by one of the ♂♂. Didn't get a good look, but I did see DBlue-wht (N) on the lower left leg of the ♀ (former(?) Arnold 3, ♀290?).

21 June — Trying my luck again on the longest day of the year,

25 May 1979 Black Oak 1355 - 1555 PDT 120 minutes 2 hours

1355.00	start watch, nest empty	46.45		
1441.45	♂426 enters hole, down	21.15	Nest unoccupied	59.45
1503.00	♂426 head out	1.20	Nest occupied	60.15
1504.20	♂426 back down	20.40	up	4.15
1525.00	♂426 head out	.30	down	56.00
1525.30	♂426 back down	5.15		
1530.45	♂426 head out	.55		
1531.40	♂426 back down	8.50		
1540.30	♂426 head out	1.30		
1542.00	♂426 leaves nest	13.00		
1555.00	nest empty	120 minutes		

	n	In hole	down	up	at hole
♂426	1	60.15	56.0	4.15	—

27 May 1979 Black Oak 1135 - 1435 PDT 180 minutes / 3 hours

1135.00	♀(?) in nest, head out	7.45	Nest unoccupied	39.55
1142.45	♀(?) leaves nest	19.05	Nest occupied	140.05
1201.50	♂102 at hole, leaves	20.50	up	8.00
1222.40	♂426 enters nest, down	22.20	down	132.05
1245.00	♂426 leaves nest	—		
1245.00	♂102 enters nest	34.45		
1319.45	♂102 head out	.15		
1320.00	♂102 back down	75.00		
1435.00	♂102 in hole, end watch			

	n	In hole	down	up	at hole
♂426	1	22.20	22.20	—	—
♂102	1	110.00	109.45	.15	1/nil
♀(?)	1	7.45	—	7.45	—

19 June 1979 Black Oak 0915 - 1225 PDT 190 minutes

0915.00 start watch

1207.00 ♂426 feeds, 3

1225.00 end watch

bird	n	bolus / food units
♂426	1	3

20 June 1979 Black Oak 0600 - 0945 PDT 225 minutes

0600 start		
0819.00	♂321	2
0819.30	♂426	2
0822.00	♂321	2
0829.00	♂426	2
0830.00	♂321	2
0833.00	♂321	2
0833.30	♂426	2
0836.00	♂321	2
0837.00	♂426	2
0838.00	♂321	2
0839.00	♂321	2
0839.30	♀427	at nest with 2, didn't feed
0840.00	♂426	2
0840.15	♂321	2
0843.00	♂426	2 } simultaneous both at hole
0843.15	♂321	3 }
0845.00	♂426	2
0853.00	♂426	3
0857.00	♂426	2
0857.30	♂102	2
0902.00	♂426	2
0930.00	♂426	2
0937.00	♂426	2
0945 end watch		

bird	n visits		food units	
♂321	9	1--0, 2--8, 3--1	19	
♂426	12	1--0, 2--11, 3--1	25	
♂102	1	2	2	
♀427	—	—	—	at nest with 2, didn't fe
	22		46	

20 of the 22 visits came within a 45 m period between 0819 and 0904. Lots of flycatching activity. At 0843 ♂426 + ♂321 arrived nearly simultaneously, ♂426 first. ~~No land~~ to land, fed first. ♂321 landed to left of hole as ♂426 fed, the ♂426 stepped aside as ♂321 fed. Both flew off more or less together. No dominance seen.

Melanerpes formicivorus

Black Oak Hastings Reservation

(21 June) I saw absolutely no feeding visits while trying to stay awake for 2½ hours. Walt had banded the nestlings just prior to the watch start at 0840, so that might have had something to do with it. No birds seen, ~~wit~~ no flycatching around the granary as in yesterday's frenzy.

22 June Another almost wasted watch, although I did manage to write a letter to SWFWMD while picking up 2 feeding visits. Details on reverse

23 June This watch, late-morning ~~to~~ early afternoon, was a total waste. I did get most of a letter to Ken Bradbury written, and I caught up on my field notes, but that was essentially it. Zero feeding visits in three hours. How exciting!

24 June Another deadly AM watch here -- no visits. I did see a Plain Titmouse + Whitebreasted nuthatch peer into the hole on 2 separate occasions, but that was the best I could do. A pair of ~~the~~ Western Tanagers cruised through the area briefly, and lots of Oriole (unbanded) activity. The Black Oak adults were all very active, especially in the trees east of the blind + nest, and especially around 0900, flycatching in the granary tree. No feedings, though. I did write letters to Nelson + Ken.

Also watched a few hours in the evening, seeing an impressive three visits. Wrote a letter to Terry

25 June Watched here this morning, and even though the birds were flycatching like crazy, I saw no visits, except one by a Nuttall's Woodpecker.

21 June 1979 Black Oak 0840 – 1110 PDT 150 minutes

NO VISITS

---

22 June 1979 Black Oak 0700–1000 PDT 180 minutes

0700.00 start
0843.00 ♂426 at nest, 2, didn't feed
0920.00 ♂321, 3
0923.00 ♂102, 3
1000.00 end watch

bird	n visits	food units
♂321	1	3
♂102	1	3
♂426	– (1)	at hole with 2, didn't feed
	2	6

Both food items were large catepillars. Other birds on Arnold seen feed gleaning this day

---

23 June 1979 Black Oak 1050 – 1350 PDT 180 minutes

NO VISITS

---

24 June 1979 Black Oak 0730 – 1030 PDT 180 minutes

NO VISITS

---

24 June 1979 Black Oak 1810 – 2010 PDT 120 minutes

640.00 ♂321, 2
724.00 ♀427, 2
754.00 ♂321, 2

bird	n visits	food units
♂321	2	4
♀427	1	2
	3	6

---

25 June 1979 Black Oak 1600 – 1830 PDT 150 minutes

NO VISITS

---

26 June 1979 Black Oak 0635 – 0935 PDT 180 minutes

0600.00 start
0710.00 ♂102, no food, after visit by Plain Titmouse
0853.00 ♂321, 2
0935.00 end watch

bird	n visits	food units
♂321	1	2
♂102	(1)	at hole with no food
	1	2

Melanerpes formicivorus

Black Oak Hastings Reservation

26 June Yet another nest watch here, with only one feeding visit to show for three hours of watching. Wrote a letter to Russ + Judy. Details are on the back of the preceding page.

27 June A nest watch in the PM. One of the nestlings is now peering out of the hole occasionally, giving what sound like incipient karrits. The "other" nestling persists in giving the usual squealing, does not look out, and may not be as advanced as the other. They already appear to "recognize" the calls of their fellow Acorn Woodpeckers, and increase their begging when the adults waka.

28 June A halfway decent watch here, for a change. The high points: ① ♀320 Red-L Green / Metal appeared out of nowhere to feed the young 4 times. ♂426 hasn't been seen at the nest in a week, and I'm starting to wonder about him ② It seemed like the two nestlings were grappling inside the nest to see who would have "the right" to be at the nest entrance. That would certainly be advantageous, since all 9 feedings I saw were made from outside the nest (i.e., the nestling at the entrance was fed). Although I could be wrong, it seemed like one nestling stayed in the front position, giving incipient karrits, while the other stayed below squealing. ③ Empirical Evidence for the aerial plankton hypothesis of how these young have survived: For certain on one occasion and probably several times, the nestling at the entrance pecked at and ate the large ants crawling all around the entrance!! (after all, it is Melanerpes

27 June 1979 Black Oak 1510 - 1640 and 1740 - 2010 210 minutes

310.00 start
348.00 ♀ 427, 1
401.00 ♀ 427, 2 out feed
440.00 suspend watch
540.00 start watch
642.00 ♀ 427, 3
2010.00 end watch

bird	n visits		food units
♀ 427	3	1-1 2-1 3-1	6

---

28 June 1979 Black Oak 0810 - 1210 PDT 240 minutes

1033.00 ♀ 320, 2 of *
1055.00 ♀ 320, 2 of
1115.00 ♂ 321, 2 of
1121.00 ♀ 320, 2 of
1121.00 ♂ 321, 2 of
1134.00 ♀ 320, 2 of
1147.00 ♂ 321, 2 of
1157.00 ♂ 321, 2 of
1159.00 ♂ 321 2 of
1210 end watch

bird	n visits		food units
♂ 321	5	1-0 2-5 3-0	10
♀ 320	4	1-0 2-4 3-0	8
	9		18

* outside feeding (bird didn't enter nest)

~~29 June 1979 Black Oak 1330 - 1445 and 1545 -~~

on following page

Melanerpes formicivorus

Black Oak Hastings Reservation

(28 June) FORMICIVORUS)!! Interesting, but probably of dubious importance.

29 June I came up here in the afternoon for a nest watch, but the wind was blowing at a good 20-30 mph clip so not surprisingly, things did not go well. Both babies are still in the nest, one occasionally peering out and "kurrit"ing.

30 June Here at 0830 for a nest watch, and I think the babies may have fledged. No squeakings from the nest. A rather strange thing happened in that an unbanded ♂ looked into the nest hole just after I arrived. No response from the cavity. The unbanded ♂ then began to poke around in the granary, but was not chased. ♂ 102 and ♀ (427, I think) were seen nearby briefly.

15 July Start watch from hide 0700. ♂ 102 White/Yellow and ♂ 321 Orange/D Blue-Yellow (N) both around, both seen sapsucking briefly from scrawny Live Oak W of the granary. Are Live Oaks preferred for sapping in the summer? Blom-one also recently in live oak, while Blue Oaks definitely preferred in late winter-early spring. Ask Walt. 0825 NB ♀ chased by another ♀, I don't know who. ♂♂ had been around her, didn't seem to mind her at all. 0835 ♀ 320 Red-L Green/Metal also seen, sapsucking from Live Oak. Other birds seen flying off toward Arnold Spring. 0855 No sign of babies. Leaving to check Spring. 1020 No wickers at the Spring but had fun watching birds come to drink.

29 June 1979 Black Oak 1330-1445 and 1545-1630 120 min

NO VISITS, howling wind

Melanerpes formicivorus

Black Oak — Hastings Reservation

17 July Start watch 0815. ♂102 White-Yellow seen right off the bat. 0840, a NB ♀ seen briefly in the spindly Valley Oak perch. 0930 ♂102 works sap tree, returns to Valley Oak, the one to the south of the sap tree. 0931 finally ♂426 Black/Orange-White in the sap tree. I was beginning to worry about him, as he ~~da~~ hadn't been seen in 3 weeks. Lots of action!! 1005 juv 497 Red/Black Red seen, sapsucking. Yeah! All adults now seen, ♂426, ♂321 and ♀427 + ♀320. ♂426, ♂102 and ~~♀42~~ ♀320 were all preening in the valley oak while ♀427 sapsucked and ♂321 (presumed) harrited from granary. Later ♂426 + ♂321 together in sap tree, no interaction. Juv. 497 begged from ♂426 by pulling + tugging at 1°. 1020 ♀427 flycatches from sap tree, feeds 497. 1035 juv 497 begs persistently from ♂321, who directs pecks at head of 497. 1040, ♀427 feeds the baby (sap?) after begging. 1042, ♂321 flies to mistletoe-laden oak next to sap tree, with juicy looking insect (homopteran?) feeds part to juv 497. End watch at 1100. To sum up, all adults (save ♂428, who must surely be gone) and juv. 497 seen. No sign of juv. 498.

21 July Start watch 0915. 2 NB young orioles, Nuttall's woodpecker, and wrentit in sap tree when I arrive (FD) ♂426, sapsucks, live oak. Strange, overcast day, distant thunder. 0845, ♂ oriole chases wrentit with ♂321 sitting right there. He does not chase oriole. juv 497 also seen. 0900 ♀427, D Blue-Red, sap tree, with ♂321 + juv. 497. 0910 ♂426 chases oriole. 0915 ♂321 fails to chase

1979 Ronald L. Mumme

Melanerpes ~~erythrocephalus~~ formicivorus

Black Oak — Hastings Reservation

(21 July) an oriole near him in the sap tree. 0925 ♀320 Red-L Green/Metal in sap tree. 0945 ♂102 seen in the Valley Oak perches to the south of the sap tree (white/yellow). Starting to sprinkle, I can see lightning. 1010 starting to rain hard. leaving. Juvenile #498 must be gone, or I think I would have surely seen him

24 August Saw everybody at LA2. See LA2 notes

26 August These guys are everywhere! See Bianca + LA2 notes.

30 Aug More shenanigans at Bianca. see Bianca notes.

28 Oct Start watch 1050. Granary almost full of Acorns. 1120, nobody yet. Calls from trees down the hill to the SE. Granary is full to the brim. Nobody coming. 1140, 3 birds seen around Bianca, perhaps Black Oak?

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Melanerpes formicivorus

Arnold 1 — Hastings Reservation

28 April — Start watch 0900. Unbanded ♀ around, plus a banded ♂. I read lower band of left leg as Yellow-DarkGreen/((Yellow - ___)?), but I didn't really get a good enough look at the upper band to call it. Looked like a yellow or orange split band. End 1015

27 June — Watched roosting here, and two birds roosted in the granary cavity that faces the road, where two nests failed earlier in the spring.

6 July — A successful ambush here, catching just the unbanded ♀ at the former Big Tree Roost hole.

25 Aug — Start watch 1055. Both birds, ♂100 Yellow-DGreen/Yellow-DGreen and ♀505 White/LPink here hanging around granary. ♀ worked a green Valley Oak acorn (FD).

28 Oct — Sat by the granary for a few minutes, seeing nothing. Just a few (~100) acorns stored here so far.

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Melanerpes formicivorus

Arnold 3 Hastings Reservation

28 April Start watch 1015. Considerable sapsucking in Blue Oak to west (downhill) of blind. ♂#120 L Pink-white/Metal seen, plus ♂#123 D Blue/Metal, ♀207 Mauve/L Pink Red. Also, a male White/Metal was hanging around, a "peripheral" group member, according to Walt. Two unbanded ♀♀ came in about 1115, much subsequent garrick, urk, etc. Noticed the ♂♂ did most of the sapsucking, ♀ 207 was mostly eating catkins, although I twice saw her chase a Nuttall's Woodpecker from a smaller, apparently secondary sap tree. No dominance activities seen, I'm afraid. End 1200.

12 May Looked here briefly in passing, seeing tons of Starlings and saw ~~[illegible] 120 L Pink/[illegible]~~ ♂120 L Pink-white/Black/Green, sapsucking from Blue Oak.

20 June Start watch outside hide at 1000. Nest recently failed. Two adult Scrub Jays feeding fledglings nearby. ♀207 mauve/L Pink Red and ♂120 L Pink-white/Metal, L Pink-white/Black-Green both seen, preening, some flycatching, poking around in granary, loafing, etc. Nobody else seems to be around end watch 1200.

21 June Start watch from hide 1140. Two birds, a ♂ + ♀, seen only at a great distance. End 1245

22 June Start watch from hide 1225. Hold on to your hats, folks, it's a mini-revolution!! An unbanded ♂ suddenly appeared, and ♂123 D Blue/Metal started to chase hell out of him. This went on for 5-10 min or so, with the

Melanerpes formicivorus

Arnold 3 Hastings Reservation

(22 June) no bands ♂ doing a lot of high intensity open-wing waras (especially to ♀ 207) drumming in the granary, etc. After a while of this, there appeared to be a reversal. The no bands ♂ started to chase ♂ 123. Then one of the birds entered a hollowed out area in the granary tree. Another bird ~~app~~ came to the hole, and with the two birds face to face, they locked bills, and fell to the ground out of my field of view. After 5-10 seconds, the two birds flew off down into the canyon. I had no idea who the participants were, but after this big grapple, I never saw ♂ 123 again. By 1400 hrs the no bands ♂ and ♀ 207 were looking pretty cozy, waka-ing to each other, flying around together. The "NB" ♂ was especially interested in the granary, poking in all the cracks + crevices, and I saw him extract some food (presumed acorn bits) and eat them.

Interesting that ♂ 120, who I saw here most definitely two days ago, was not around. I think he must have been knocked off. ♂ 123 had been hanging around Bianca with ♂ 126. Perhaps he had been living in both places, and maybe he'll move back there now. I was fairly sure that I saw ♂ 126 at Bianca earlier in the day (see Bianca notes).

For awhile during this revolution I though I saw 4 birds (and an unbanded ♀) but I wasn't sure. Toward the end I saw NB ♂ + ♀ 207 chase an unknown intruder

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Arnold 3 Hastings Reservation

(22 June) from the upper Arnold 2 area. Now ~~NB~~ 1445 and things calming down considerably. NB♂ + ♀207 looking very tight + friendly. Revolution from start to finish!! Not bad. ♂NB still drumming occasionally at granary. Thought I heard him give a few garricks during the melée, but it could have been another bird. End watch 1500.

23 June Arrived 0730, and revolution is still in progress. This time it's an unbanded ♀ that's here, being chased fairly vigorously by ♀207. The NB♀ drummed + garricked several times (about 10-15). Most of the garricks were given when she was alone and the NB♂ + ♀207 were together. ♀207 + NB♂ looking very tight, open wing wakas, drumming together on the granary, ♂ flying to the ♀ + vice versa. ♀207 also gave some garricks, when alone or with the ♂ when the NB♀ garricked. Briefly a 4th bird, another NB♀, but she did not tarry. I doubt that the NB♀ here will accomplish anything. Absolutely no sign of any of the former Arnold 3 residents. ♀207 drumming from granary, follows the ♂ as he flies. End watch 0830. As opposed to yesterday, ♂ isn't doing very much at all, no chasing. Seems to prefer ♀207 (more wakas, flies to her, etc.) but he also wakas when approached. Back here 1030. ♀207 + NB♂ only birds, things have really quieted down.

Back here at roosting, saw a bird peering out of the lower hole of the Upper Arnold 2 roost + nest tree.

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Arnold 3 — Hastings Reservation

8 July Walt + I successfully ambushed up here this morning, catching both the unbanded (now banded) ♂ and ♀207 in the hole facing the hide in the large broken valley oak on the west side of the adjacent canyon. Both birds screamed like the dickens. I couldn't tell any difference.

25 Aug Sat here for an hour around noon, seeing or hearing no sign of birds. While watching earlier at Arnold 1, I thought I had heard some activity, but wasn't sure.

26 Aug Yes indeed, both birds alive and well! Started watch 0810, saw ♂508 (Red-Black/white metal/white) fly into the Valley Oak to the east of the former granary. He spent several (3-5) minutes pecking and pulling at a twig containing two acorns, directing his pecks at the base of the acorns and the twig stem. He occasionally would pull and twist one or the other of the two acorns. He finally succeeded by pecking at the stem and twisting it off. He then flew lower in the Valley Oak to a nice level anvil, and started to split open and eat one of the Acorns (FD). After a few moment, ♀207 Mauve/Tan-Red flew in, both wakad, she hopped down to the anvil. ♂508 gave way and flew off, and the ♀ started to work the acorn for a while, before flying off, leaving an intact and a partially eaten acorn. 0830 lots of wakas from UA2 area, perhaps where A3 guys will now be hanging out. 0845, Hey, a mini-revolution at UA2!! Two NB ♂, a NB ♀, and the A3 birds all hanging around UA2. ♀207 + ♂508 both strongly attached to the "west" granary tree, defending it from all comers. Lots of open-wing wakas between the two birds. In the "east" granary, 2 NB ♂ and ♀ flying around, one of

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Arnold 3 Hastings Reservation

(26 Aug) the ♂♂ appearing to be chasing the other. A3 birds did not chase these birds as long as they stayed in the easttree area. Back with Walter and Nancy at 1030, things have changed. A3 birds now defending the whole area, 1 NB ♂ and 1 NE ♀ around, the latter caught in the mist net we put up. Usuall revolution stuff, garricks (the just caught ♀ has a very squeaky voice) drums, chases, etc.

28 Oct Cruised by here around noon, seeing no birds but finding the U/t2 granary about 1/4 full of acorns.

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Lower Arnold 2 — Hastings Reservation

25 May — Two unbanded ♂♂ and an apparently unbanded ♀ up here at 1640. Some drumming, a few garricks from one of the ♂♂. The two ♂♂ poked around in the N-facing hole in the dead Blue Oak, one entering it completely for a few seconds.

22 June — In passing here, 2 birds flew down the ravine from out of the dead Blue Oak at 1220.

In passing again at 1515, 2 birds, one ♂, one ♀, both I think unbanded, flycatching from Blue Oak.

23 June — Watched roosting here. Two birds went into the "valley oak hole" that has been opened, downhill toward the ravine from the dead Blue Oak.

24 June — Walt set an ambush here, but the birds apparently didn't like the looks of it and flew off to apparently roost elsewhere.

7 July — Walt and I successfully ambushed these birds, one ♂ + one female. For bands, see field list. Both screamed alarm calls quite a bit, and I certainly couldn't tell any difference offhand.

24 Aug — Start watch 1020. While at Bianca, I saw two birds ~~coming~~ hanging around the dead Blue Oak. Walking up, I saw an ad ♂, and later another adult plus juv 497 Metal / Black-Red from Black Oak! Don't know what he's up to. He was sitting in the Blue Oak granary. 1105 Chase! 2 ad ♂♂ here, plus a third bird ♂ chases other ♂. 1120 Things are pretty confusing. Now ♂ 123 DBlue/LBlue-Orange/DBlue-Metal from Bianca - Arnold 3 here in Blue Oak. 1230 Things now starting to clear up. Four birds from

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Lower Arnold 2 — Hastings Reservation

(24 Aug) Black Oak (♂426 Black/Orange-white, ♂321 Metal/D Blue-Yellow(N) ~~and~~ ♀320 Red/L Green/metal, and juv 491 Metal/Black-Red) are all hanging out here, shuttling between Black Oak and LA2. No sign of the two former LA2 residents. Abandoned because of fire? The presence of the Bianca bird(s) suggests that they are also trying to expand over here. An unbanded ♂ also seen here. Some chasing, but never ascertained participants, other than juv 491 appeared to briefly chase someone once. Unbanded ♀ Oriole at 1256. 1305, more confusion. ♀320 flies to Bianca perches cozily with 2 ♂♂ (123 + 126.?). One of these ♂♂ then flies up to the fringes of LA2; 1340, Still more confusion. ♂321 flies to Bianca, sits cozily with another bird in the Valley Oak (see Bianca notes). 1350, ♂102 White/Yellow at LA2, in Valley Oak east of Blue Oak. First time he is confirmed as present. 1400, ♀427 completes the Black Oak census at LA2!! Hold it, all I saw was D Blue/Red wasn't sure which leg. Could have been original LA2 ♀!! Given the general situation, however, ♀427 seems much more likely. ♀320 at 1410 again flies toward the Bianca Valley Oak, greeted with waltzes by unknown birds. Bianca seems more likely, but since ♂321 was in the same tree earlier, who knows. Lots of acorn eating and flycatching today. End watch 1430

25 Aug 1045, NB ♂ darting from the granary. Black Oak birds not around, but while watching at Bianca earlier, I had gotten the impression that they were here (saw juv. 491 in the area for sure). Obviously, this territory is still in a state of confusion.

26 Aug Today I saw some of the Black Oak birds at Bianca, (see Bianca notes)

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Lower Arnold 2 Hastings Reservation

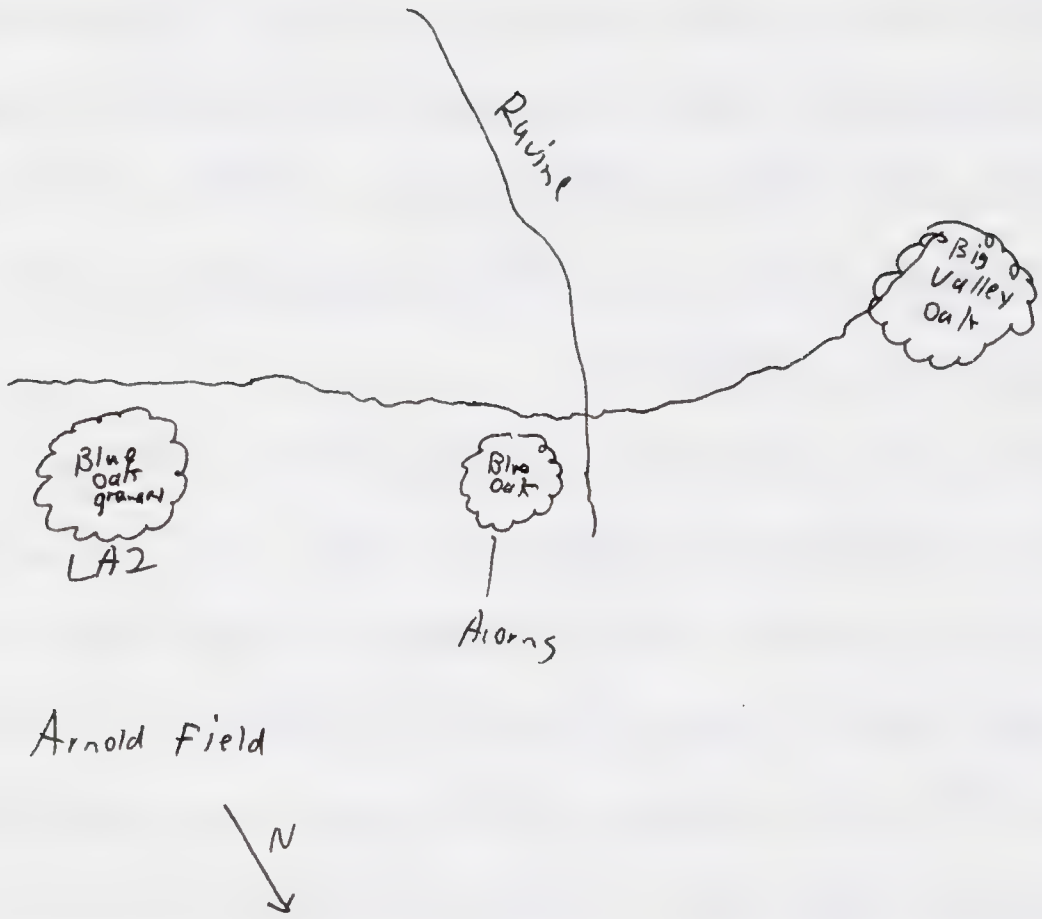
(26 Aug) but at 1230 I saw 6 birds together in the LA2 granary (Blue Oak). I was able to read the bands of 5, ♂321 Orange/D Blue-Yellow (N), ♂426 Black/Orange, ♀320 Red-Green/Metal, juv 497 Metal/Black-Red, and ♂102 Yellow/White. The 6th bird was a ♀, and presumed ♀427.

30 Aug Start watch 1045. An unbanded ♂ in the granary, working a Blue Oak acorn. He gathered the acorn from a tree loaded with acorns, in the ravine to the west of the granary. The loaded Blue oak is close to the field. 1100, now an unbanded ♀ in the granary. A few moments ago, the NB♂ flew west to the large Valley Oak at the edge of the field, just east of UA3 (see map on back). Promptly chased by a presumed A3-UA2 bird. Same tree where much revolution action centered on 26 Aug. 1115, ♂+♀ looking fairly cozy, in granary together. ♂ harvests a couple more Blue Oak acorns, starts working, flies off. ♀ then starts working the acorns the ♂ harvested. Is this common, ♂ harvesting, then giving way to ♀♀? Saw it at A3 the otherday. Looking up, now I see the ♂ back working those acorns. 1120, ♂ digs around in the storage holes (refurbishment?). End watch 1150

9 Sept Everytime I come here, something different is happening. 1000, an UB♂ plus a banded ♀ which I read as DBlue/Red. That would point to ♀507, the former resident here! Where has she been the last 2-3 weeks?

Later here for roosting. Zilch!

28 Oct Flushed 2 birds from the granary. A modest amount (~200) of acorns stored.


Ravine
Big Valley Oak
Blue oak grassy
LA2
Blue Oak
Acorns
Arnold Field
N

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Bianca — Hastings Reservation

24 March Start watch from hide 1610. 1640 ♀ Anna's Hummer drinks from sap wells on Blue Oak, where Walt says Bianca birds have been sapsucking. Anna's there < 10 seconds, but checked several wells. Pair of Nuttall Woodpeckers (♂ silver banded on right leg light green (?) on left) worked over sap wells several (5) minutes. Also two White-Breasted Nuthatches, ♂ + ♀ (Walt says a nest nearby) working sap holes, about 5 minutes. Banded ♂ Nuttall flies off, but ♀ (unbanded) continues to work sap holes. 1700 and she's still there, now about 15 minutes 1703 ♀ nuthatch back. ♀ *Nuttalli* supplants ♂ Nuthatch. ♂ *Nuttallii* doing much drilling and tapping in Valley Oak behind me. 1710 Plain Titmouse arrives, checks out a few holes 1712 ♂ *nuttalli* calls, ♀ finally flies off. ♂ Nuthatch still around. End 1715. Red-breasted Sapsucker, too.

12 May Up here with Walt, we saw a genuine low-intensity revolution. I had only my 20x scope, but according to Walt, there were two of the Arnold 3 ♂ plus two (and briefly a third) unbanded ♀♀. One of the ♀♀ seemed to have the upper hand, continuously chasing and supplanting the other. The ♂♂ did almost nothing, and the ♀♀ seemed to follow them around. The ♀♀, especially (it seemed) the subordinate ♀, drummed, garricked and urked quite a bit.

22 June Start watch 1015. Two birds seen here, one a ♂ which

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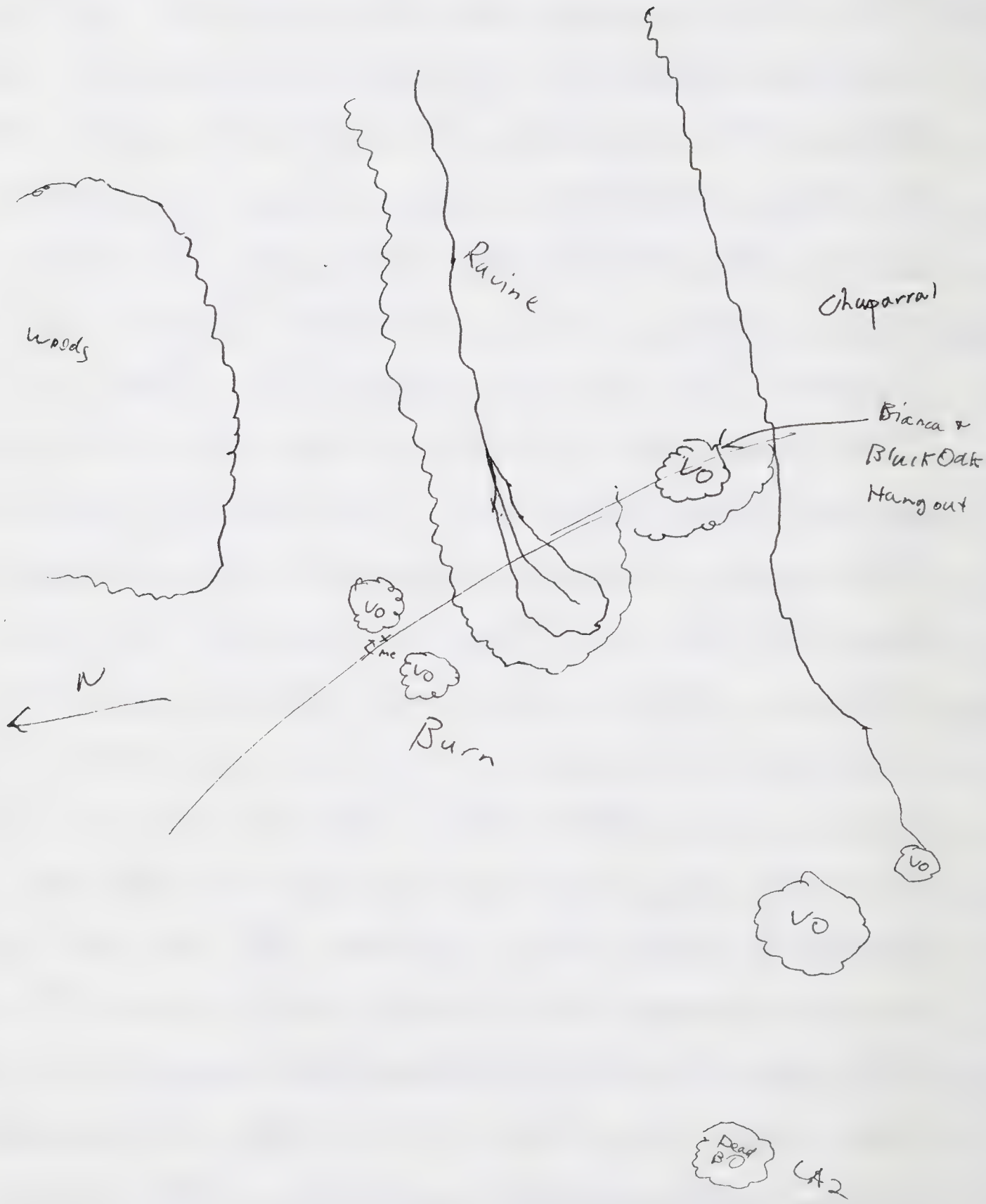
~~Hastings~~ Bianca Hastings Reservation

(22 June) I feel fairly certain was White/Metal, ♂126 formerly of Arnold 3. I could not tell sex or banding status of the second bird. An unbanded ♀ cruised through the Eastern end of the territory, flying from south to north, but she looked like she didn't belong here. End 1215

23 June Again watching here, I saw (or I'm again fairly sure I saw) ♂126 and also perhaps his Arnold 3 sibling, ♂123 DBlue-Metal, who was at Arnold 3 yesterday getting the shit kicked out of him (see Arnold 3, 22 June). Birds making themselves tough to watch, always well down the hill or on the far, far side of the ravine,

24 Aug Start watch 0820. Three birds definitely here, 2 ♂♂ and a ♀ that Walt had seen a few weeks ago. She seems very friendly and noisy. 0840. She is definitely unbanded. 0955. Well well, four birds perched together in the dead top branches of a Valley Oak. 2 were ♀♀, one of which may have been banded, but I really dont know. One of the ♂♂ looked like ♂123 DBlue/LBlue Orange, while the other looked like ♂126 White/Metal, but my looks were not very good and often conflicting. 1015 Bird gone, flown off to north (heading for spring?) end watch. See LA2 notes

25 Aug Start watch 0845. I'm sitting under a Valley Oak near the edge of the barn, watching the dead top branches of a Valley Oak where all the Bianca - Black Oak - LA2 action was yesterday (Map on back) When I first arrived, there were 3-4 birds fooling around in the ravine, but at least two of them flew off well to the north, past the eastern end of Black Oak. The Black Oak baby was briefly in


Woods
Ravine
Chaparral
Bianca &
Black Oak
Hangout
VO
VO
me
VO
N
Burn
VO
VO
Dead
BO
LA 2

Melanerpes formicivorus

Bianca — Hastings Reservation

(25 Aug) the Valley Oak to the right of me, along with another presumed Black Oak bird. Two Coopers Hawks around, birds seem to be laying low. Big (~20 birds) flock of Scrub Jays working the barn. Most look like juveniles, but it looks like a good deal of molt is in progress. 1030 Nothings goin on. End watch

26 Aug Strangeness continues here. Start watch at 1145, and see Black Oak birds fooling around in the Bianca granary trees. ♂321, ♂426, juv 497, plus a ♀ which I suspect was ♀320, all acting like they own the place. No sign of the true Bianca residents. Perhaps this explains yesterdays observation of "Bianca" birds flying to Black Oak. By 1215, these birds plus other Black Oakers had moved up to LA2 (see notes).

30 Aug Start watch 1000. ♂ + ♀ here as I first arrive. 1010, juv 497 of Black Oak here (Metal/Black-Red / Red/Black-Red), so it seems like this place is still up in the air. ♀320 Red-(Green/Black-Purple, ♂426 Black/Orange-white, ♂102 Yellow/white white/yellow all screwing around here. I don't know what has become of the Bianca ♂♂.

9 Sept Start watch 0845. Birds are here, but I suspect that they are still Black Oakers. No bands seen, but birds kept shuttling back and forth between Bianca + Black Oak.

28 Oct Walked through, seeing 3 birds which I suspect were Black Oak residents. No acorn storage here, probably still abandoned.

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Melanerpes formicivorus

Lambert — Hastings Reservation

26 June — Here more or less in passing at 1100 hours, and I saw no birds around.

7 July — Here around roosting time, and nobody seen in any of the holes or in the vicinity.

14 July — Watched here at roosting, seeing nothing.

30 Aug — Start watch 1225: 1325, Nothing. End watch. A few calls heard in the no-mans land between Lambert and Keep Out, but that's all.

1979 Ronald L. Munme

Melanerpes formicivorus

Arnold Road Flats — Hastings Reservation

28 Oct While walking up to the Arnold, I stopped by here to see what was going on. Seems to be at least a pair in residence, and they were storing Acorns with a fair amount of enthusiasm. The ♀ was certainly unbanded, the ♂ questionably so.

1979 Ronald L. Mumme

Melanerpes formicivorus

(Unknown Group?) Hastings Reservation

2 July While out looking for the fledglings from Plaque, I may have stumbled upon a heretofore unknown group of wickers. I was kicking around "MacRoberts" and Blomquist knoll (Pam had seen the Plaque babies here, and earlier in the AM I saw one of the Plaque adults fly in that direction), I moved west across the Reservation fence line that runs N-S, into a small blue oak canyon, across a ridge, and into a second blue oak canyon to find ~~the~~ two woodpeckers, one an unbanded ♂ and the other of unknown banding status. They were moving around together within a fairly well defined area at the base of Red Hill, bounded on the north by chaparral and a ~~[illegible]~~ E-W fence line (Not the Reservations) and on the west by open pasture. I saw one of the birds harvest one of the baby acorns from a Live Oak amidst the chaparral!! There is a very dilapidated granary in a bleached broken trunk of a long-dead Blue (?) Oak along the chaparral, E-W fence line, plus a few marginal looking roost holes. I'll have to check it out further.

3 July I tried to watch roosting in the couple of holes I had scoped out, but I saw or heard no birds. Perhaps it's not a legitimate group. Earlier in the day I walked around, exploring the "territory" and didn't see anybody. In MacRoberts canyon, however, I saw two birds (Plaque adults?) chase an intruder far up the canyon toward Red Hill.

10 July Tried to find birds here today, seeing nothing.

Things to do

(1) Time budgets of birds while nest is in progress. Choose a group where some birds doing a lot, others (of same status) doing very little. Also choose groups easy to watch (Road 1). Do birds that feed a lot fly more, forage more, spend less time loafing, etc? Do it simultaneously while a second observer does the other bird, or do the budgets in short bouts, so as to reduce time of day effects.

Idea List

Hatching success w/ groupsize, too.
"attentiveness data

① Hatching success, groups w/ acorns vs groups w/o acorns.
if plenty of acorns, birds need to spend less time
foraging (Flycatching) can be more attentive

18 Feb 1980 ② As per Petes suggestion, quantify how frequently
birds are together. Independence a problem.
Eg
eg
Can either ① When arriving at a territory
see who's there, and who within 10 meters
or so of each other (also 5 meters). If disturbance
a problem, point sample 1 hour later or so.
Each bird will have a p of being in the
granary (or in view) or in what ever tree you're
watching. A 4 bird group: probability of all together
the product of the separate probabilities,
Or find one bird (first bird you find)
(its p = 1). Then look for other birds.
What are the ps of others nearby.
The question is: Do wickers stay close together
on the territory, or are they not much more likely
than chance to be found together? If they
do, who stays close to who?

Territory defense (Intraspecific)

① Date	② Time	③ group	④ defender	⑤ chasee (intruder)

Territory defense (Interspecific)

① Date	Time	group	defender	intruder

"Salamander feet" idea

AW, ♂♂ bigger than ♀♀. does this mean allometric relationships, sex differences in morphology, and these may constrain feeding ecology? why do ♀♀ flycatch more? why do ♂♂ have bigger bills, proportionally shorter wings?

Need good development data (we can get it) on juvs that become ultimately ♂♂, ultimately ♀♀: wing area, weight, wl, bill length, depth breadth, etc

---

A very interesting idea (Probably incorrect.

D Pink ~~Blue~~ - Or / ~~Or - Mauve~~ D Pink - Or

Or - ~~Blue~~ Brown / Metal

Orange - D Pink / Metal

D Pink - Or ~~Blue~~ / D Pink ♂

Metal / D Blue Yellow (N

D Blue - Yellow (N) / Blue ♀

58 10
14 15
72 25

White / D Blue / Mauve

Metal / ~~Dark Blue~~ Many / ~~Mauve~~ D Blue

1980 Ronald L. Mumme

Journal

Limantour Beach, Marin County, CA

6 Jan Pete + Lois Myers invited me along with them and Anabelle Cole on a Sanderling hunt, and I saw my first Red-throated Loon in the lagoon there. Also on this calm, overcast day:

Common Loon	5	Marsh Hawk	6
Horned Grebe	25	Least Sandpiper	40
Western Grebe	1	Western Sandpiper	500
Pied-billed Grebe	2	Dunlin	500
Snowy Egret	5	Sanderling	75
Great Egret	2	Whimbrel	1
Bufflehead	50	Long-billed Curlew	2
Pintail	1000	Marbled Godwit	15
Am. Wigeon	500	Greater Yellowlegs	1
Gadwall	200	Mew Gull	25
Green-winged Teal	15	Short-eared Owl	8
Shoveler	5	Say's Phoebe	1
Surf Scoter	20	Water Pipit	1
White-winged Scoter	5		

11 Jan Hastings Reservation, Monterey County, CA

Came down here on a rainy, overcast day with Larry Hanks and Nancy Joste. An exciting week, with the nude body being found Monday, and Jimmy Bell in the hospital today. I tried to watch at Blom-one in the afternoon, but all I did was chase cows, much to the amusement of Larry. Dinner at Red House.

12 Jan Hunter Liggett Military Reservation, Monterey County, CA

A field excursion here with Walter, Nancy + Larry on a day with intermittent rain. Despite the rain, the trip proved to be very interesting, Acorn-woodpecker-wise. It seems that the situation there is exactly the same as at Hastings: (1) The fall 1979 Acorn crop was outstanding, with excellent *Quercus lobata*

Journal

Hunter Liggett Military Reservation, Monterey County, CA

(12 Jan) Q. douglassii (acorns of both species littered the ground in some areas) and, as far as we could tell, Q. agrifolia. (2) The woodpecker population still seems a bit low. A good proportion of the granaries there were unused. Those that were in use were usually well-stocked with acorns. Overall, there did not seem to be an extremely abundant population, although we did watch one group of six flycatching from the top of a Digger Pine. 2 ♀ Common Mergansers

Back at Hastings, Three-Penny Opera at Hidden Valley.

Hastings Reservation, Monterey County, CA

13 Jan A rainy rasty day. Shelled acorns with Walter, lunch at Red House, then return to Berkeley in a driving rainstorm.

24 Jan Arrived here about 1830 after stopping by at the PSG meeting in Asilomar and suffering (and not noticing) a 5.5 earthquake centered in Livermore. Dave Winkler, Suzanne Morse, Johnny Anderson + Steve + Melinda Pruett-Jones. Arrived late. At the PSG, saw Tony DeGange, Ralph + BA Schrieber

25 Jan Watched at Blom-one, 1500 + 1800 on this frosty-morn warm afternoon day. Things are really quite green compared to last year, the creeks are flowing, and the weather's been unusually warm. 3 Cinnamon Teal at Blomquist, and a pair of copulating Kestrels at 1500 were the days avian highlights. In the evening, a fun party at the cabin with

1980 Ronald L. Mumme

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Hastings Reservation, Monterey County, CA

(25 Jan) the whole gang (including Pete Myers + his crew). Dave + I played guitar and mandolin.

26 Jan A nice breakfast at Red House with everybody, then Walter + I cruised up PO Hill looking for banded birds. Many Shooting Stars + Milkmaid already in bloom up there. Dinner at Red House with Dave, Suzanne, + Johnny.

27 Jan Cloudy this morning. Watched at school hill, lunch at Red House, then drove back to Berkeley at 1400, dropping a nice stray dog off at the SPCA enroute.

13 March Arrived here at 1200 on a beautiful warm day. Things very green, a few of the Valley Oaks just starting to leaf out. Willows, Buckeyes also. Popcorn flower, a few Buttercups, Viola (Johnny Jumpups) in bloom. Walt reported first gnatcatcher and OC warbler today. Watched at Blom one, largely unsuccessfully, seeing only 2 birds. At roosting, though, I flushed 3 birds out of the nest hole, while a 4th was hanging out in the tree. They need more watching. A white-tailed kite was near Blom One

A memorable dinner in the bunkhouse with Nancy, Walter + Pam. Pam brought a fine stew, while Nancy and I made rice + broccolli, and a salad. All very good. For dessert, we drank the long-awaited bottle of Mumm's champagne, with a Cocolat chocolate cake.

14 March Began the morning with the first seasons Western Flycatcher singing next to the Bunkhouse. Watched at School Hill and School Hill West in the morning, seeing paired Coopers Hawks and Golden Eagles. Red-shouldered Hawks seem

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Hastings Natural History Reservation

(14 Mar) to be everywhere. Orange-crowned Warblers and Violet Green Swallows (just arrived) on School Hill. Ceanothus in heavy bloom on Watertank Hill.

Watched at Blomone in the afternoon, being caught tresspassing. Dinner at Red House. I'm catching cold and losing my voice.

15 Mar A good field trip today, as Nancy, Pam, Walter and I hiked up to Palo Escrito, returning via Madrone Canyon. A very beautiful trip! The high point was the most impressive Acorn Woodpecker granary I've ever seen (see sp. acct.). It was a dead valley oak stub, 5 meters high and absolutely covered with storage holes, perhaps 15,000 or so, almost all of them with acorns!!! I took many pictures. Golden Eagle, Sharp-shinned Hawk, and lots of Acorn woodpeckers. On two occassions near the windmill (towards the top of Palo Escrito, and near the huge granary, we seemed to flush woodpeckers out of nest holes! (Nesting already?). On the way down, we saw Mountain Quail, many Band-tailed Pigeons, Ensatina, and a Live Oak still bearing acorns! Not bad for March.

16 Mar Return to Berkeley

28 March I arrived here shortly afternoon with most of my worldly possessions. Walter told me the exciting news about the Blomone manipulation, and that, the beautiful weather, etc, helped me to forget about a miserable last day in Berkeley. The Griffins kindly offered the use of Andrew's room, and I

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Journal

Hastings Reservation, Monterey County, CA

28 March accepted. That should help ease the housing crunch this spring. A nice dinner at Red House with Pam, Walter, and Nancy, then to Hidden Valley for a performance of Carousel, which I enjoyed. Scott + Bev Smith arrived late this evening.

29 March A gorgeous day! Warm and springlike. Western Flycatchers, gnatcatchers, Orange-crowned Warblers, House Wrens, and today I had the priviledge of seeing the first Bullock Orioles down by the Lower Barn. Good watches at Hay-Blom and Lower Haystack, a less good watch at Blom-one and School Hill West. Roosting at Gazebo, after an incredible display of pre-roosting mounting. 3 birds roosted in the road hole.

30 March Cooler than yesterday. An unsuccessful ambush at Gazebo, followed by watches at 1500 and 1800. A nest check at 1800 proved negative. Picked up the yellow pan bags, helped Nancy bake a chocolate cake then roosting at gazebo, dessert at Red House

31 March Even cooler, cloudy + windy late in the day. A partially successful (hence unsuccessful) ambush at Gazebo to catch the 2 breeding ♂♂. A very unsuccessful intruder experiment at School Hill, a good watch at Road 3 + Finch.

1 April Good watch at Blomone in the AM and Westgate, gate, and Road 1 in the PM. Dinner at Red House

2-5 April Berkeley, Walter's doctoral seminar.

6 April Started the day with an early AM watch at School Hill. Walter and I then spent a few hours on the Arnold, checking holes,

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(6 April) etc. I then finished up the day by checking holes at School Hill (no eggs) 1500, 1800, Hay Blom, Low Hay (watching there, too) and Blom-one. Returning to the labs late in the day, I stumbled upon a Revolution at Plaque (see notes). A nice Easter Dinner at Red House with Pam, Walter, and Greg Butcher.

7 April Good revolution watches at Plaque began and ended the day. In between I watched at Road 3, checked "the nest" (empty) there, watched at Road 1, helped clean up the Bunkhouse with Nancy, who returned today, and watched roosting (or lack thereof) at Buckeye. Nancy + I visited Walter in the evening. White-throated Swifts (2) at Road 1.

8 April An interesting revolution watch at Plaque, a massive bunkhouse cleanup, and a good watch at Blom one, and lack of roosting at Buckeye were the events of the day. First western kingbirds of the year here, one at Lower Barn, a second at Blomone. Nancy and I took an eggplant parmesan - cornbread dinner up to Red House

9 April The highlights of the day were the arrival of Sandy Nishimura, and Walter catching a bird by hand (!) (#524) at the Plaque revolution. The Plaque story gets more and more interesting, but it has blown our Blom-one manipulation. And How could I forget: The nesting season has begun! Road 3 has 5 eggs (see group notes). Another useless roost watch at Road 3 capped the day. Also, I watched at Road 1

10 April The revolution at Plaque seemed to be resolved today, at that was the high point. In addition, I watched

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(10 April) at School Hill, Lower Haystack, Plaque, opened the nest at Road 3, Roosting at Gazebo with Sandy, Brownies at Red House after dinner. Berkeley tomorrow, after watching at Plaque. Barn Swallow, Black-throated Gray Warblers, etc. Golden Eagle near Plaque.

11 April Quick watch at Plaque in the Am, then Berkeley Dave's Orals Burrito Fest

13 April Returned from Berkeley at 1300. Watched at Plaque for a few hours, in a Blue Funk. Dinner in the Bunkhouse for the first time with Gwen, Sandy + Nancy.

14 April A pretty dismal day. A poor watch at Plaque in the morning, followed by a poor watch at School Hill, an interesting watch at School Hill West, a lousy watch at Road 1, then another bad watch at Plaque. At Plaque in the afternoon, I saw these two wretched looking characters walk across Buckeye Hill, stop at the granary, fool with the ambush set up there, then walk off with Walters Lackpack, rope ladder, and other stuff. There followed frantic runs up Buckeye, calls to the sheriff, etc. Plus, Robbie Solz arrived today. The only high point was finding a quail nest nr School Hill West, plus ~~some~~ a near fledging Junco.

15 April A much better day. Good watch at Plaque + Low Hay, a bad watch at Road 1, a quail nest field trip, poor watches at School Hill West + School Hill, Roosting at School Hill, dinner, and a good champagne Cocolat Cake party at Red House. First Ash-throated Flycatchers today, and I think I heard Black-headed Grosbeaks back.

16 April Suffering from Chocolate and champaigne poisoning, I got

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(16 April) out late today. A good watch at Road 1 was followed by Walter opening the nest at Finch (6 eggs!). I checked up on School Hill, and that about did it. A successful roosting at Gazebo. Very hot today. A Rufous-sided Towhee nest (4 eggs) near the road.

17 April First Lazuli Bunting, Black-headed Grosbeaks, Western Tanager, & Clipping Sparrows seen today. I watched first at Road 1, then Plaque, then checked out Gazebo to see if they were still OK for manipulation. Roosting at Road 3, then a spaghetti & rattlesnake dinner at Red House. Very hot the last two days. At this rate, things will be dry, dry, dry very soon. Already stuff is browning up.

18 April A very interesting set of watches at Low Hay and Road 1. Walter checking the impossible nest at Road 1 produced 2 egg! Hot dog! I also looked in on the nest at Finch, then checked the nest at School Hill. Roosting at Road 1, Robbie for dinner in the Bunkhouse

19 April A truly remarkable day! A 5am - noon watch at Road 1 produced the first record of egg-tossing for Hastings Acorn Woodpeckers! See copious road 1 notes. That pretty much took care of the entire day, although we did stage an egg-toss celebration, drinks at Will's and ice cream at Red House. Also saw my first reservation Gray Squirrel on Poison Oak Hill, just above Road 1

20 April A change in the weather was the highlight of the day, turning cloudy late in the ~~afternoon~~ morning, and misty and rainy in

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(20 April) the afternoon. I had a much more routine morning watch at Road 1 in the early morning, and after a long (and well-deserved, I might add) nap, the rain pretty much wiped out the rest of the day.

21 April An absolutely wretched day, cold, rainy, especially in the afternoon. All I did was check some holes in the morning, then watch it rain in the afternoon, letting Road 1 go by the boards. Dessert in the bunkhouse with Jim Patton. Even snow on Chews Ridge.

22 April A brief respite from the rain to watch at Road 1 in the AM and snatch 15 minutes at Plaque. After that it was rain, rain, rain. Guitar & mandolin jam with Gary and running (up to the 27.0 mile marker) in the afternoon with Gwen, Nancy, Shorty & Gary.

23 April A misty, foggy day with constant rain. I did manage to watch some at Road 1, remaining high and dry in the car, watching the nest. Pam & Walt returned from Berkeley, bringing my mail which included, among other things, an overdue book notice and a ~~[illegible]~~ bounced check. Thanks alot.

24 April Finally, a decent day. Caught a little Plaque action in the morning, showed Sandy the nest at Gazebo, watched at Lower Haystack, helped check the nests at Road 1 (8 eggs! a record!) and Road 3 (3 healthy babies, 1 runt, one infertile egg). Checked the nest at School Hill, watched roosting at Buckeye. Wilson's Nashville, Townsend's Warblers

25 April A search for the Long-eared Owls frequenting Wickerhill trickle produced many flushings, but no good looks. That was followed

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(25 April) by a bad watch at School Hill, then good group and nest watches at ~~Sch~~ Road 1, where I also watched roosting. Found the Oriole nest at Road 1, and when we let a mouse out of ~~the~~ a trap (accidentally) by the shed, a Scrub Jay pounced on it immediately. Neato! Steve + Melinda Pruett-Jones arrive tonight.

26 April A pretty eventful day, overall. First, Steve + Melinda found the Watertank Hill Cooper's Hawk nest in less than 5 hours. Steve climbed up, finding 5 eggs, with the ♀ incubating. Up there in that draw were a Orange-crowned Warbler nest (4 eggs) and a Junco nest (4 eggs). In the afternoon, at School Hill, they found a Red-tailed Hawk nest and a Great-Horned Owl nest. Impressive! I, meanwhile, watched poorly at Low Hay, OK at Road 1, checked holes on ~~the~~ School Hill, helped Walt check the nest at Finch (4 babies, ~~one~~ two unhatched eggs), watched roosting at Road 1. Suzie Morse, Cindy (?), and Rob Robicheaux here on field trip. Nice talk after dinner with Nancy, Suzie, Gwen.

27 April 1st day on daylight savings time, and I mostly wasted it. Fooled around on the Arnold, then sort of "reorganized my personal affairs", and caught a short nest watch at Road 1, where I also watched roosting

28 April A pretty rainy day. I managed to sneak in a few hours at Road 1, then went into town with Nancy + Gwen in the PM. Going away party for the Pattons at the Griffins.

29 April Halfway decent weather for a change, after a little morning rain. I watched at Plaque and 1800 before (chagrin!) discovering

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(29 April) that School Hill had snuck a nest in on us in the 4th enclosure tree! Walter discovered 1500 had done the same today. Another goodbye party for the Patton's, this one at the Davis' and including the entire reservation, Roosting at Road 1

30 April The Only good points of the day were that ① The weather was beautiful, finally! ② I found the "blown away" hide at School Hill, which had blown uphill into the chapparal facing Robertson creek. Otherwise a lot of tension regarding the cabin, now that the Patton's are gone. I did manage to watch at Road 1, and Low Hay.

1 May Not a great day. Force 5 winds on Haystack Hill start the day before it turns foggy + cold, while I find the nest at Low Hay (later opening with Walter produces 3 inc. eggs. 1800 also snuck in on us (babies!). More tension, but at least it's resolved. Also watched at Plaque. Roosting at 1800. My first reservation Lincoln's Sparrow along Big Creek.

2 May A nest watch at Low Hay and Road 1, followed by checking up (unsuccessfully) at School Hill West. A good dinner in the cabin, roosting at Low Hay. Barbara Dunn and champagne

3 May A pretty blah day. Watched at Low Hay in the AM, then moved some of my belongings up to the cabin and worked on my small part of the grant proposal in the afternoon. Roosting at Road 1

4 May Watched at Plaque, Checked the Cooper's Hawk plucking

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(4 May) perch, checked the Road 1 nest with Walter, then worked late on the grant proposal.

5 May More good Plaque watching, Road 1 nest watch, School Hill west, a talk on wickers to the Irvine class, etc.

6 May Bad Plaque watches today, explored Buckeye canyon looking for potential nest & roost sites for Plaque, found (?) the new nest at Buckeye (low hole), a good nest watch at Low Hay, then a fun trip into town with Nancy and Gwen. Roosting at Road 1.

7 May Watched at Plaque, and discovered a potential nest hole (bird looking out), which I was able to open, a first for me. Helped Walter get up to the non-nest at Gate, watched the nest at Road 1, fucked up roosting at Plaque, then champagne & pettifores at Red House.

8 May A 4hr marathon at the would be Plaque nest produced nothing. Group watch there was also dull. Also helped Walter drag the ladder up to School Hill West (incredibly tough!), ~~Blast~~ but found a Brown Towhee nest in a dead bush 1 meter off the ground, 4 eggs. Finished moving my stuff out of Andrew's room, and cleaned the floor in there.

9 May Watched at Plaque, both the "nest" and the group, and at Low Hay. Swainson's Thrushes singing near the bunkhouse. Rain late in the day, roosting at Plaque. ~~[illegible]~~ ~~arrived in the cabin~~, and Rex Merrill, Nancy arrived late, too

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10 May A pretty momentous day. I started off by actually watching ♀ 494 at Plaque lay the 1st egg in their (hopefully) communal nest. Around-the-clock watches followed, but we celebrated with a great dinner up in the cabin, with the crew plus Rex Merrill and Ian Tate. A dance followed. Good party.

11 May A pretty dismal day, trying to watch Plaque all day, in poor weather. NO egg laid today, possibility of nest abandoned, etc, but at least somebody roosted in the nest.

12 May Also a bad day, wet, cloudy + cold, and Plaque has apparently abandoned the nest! Shit! Swainson's Thrush continues to sing around the bunkhouse, Many Wilson's, Yellow, and 1 Townsend's warbler at Finch. routine nest watch at Road 1.

13 May Relaxed. Watched at Plaque, made cookies, cooked dinner, etc, etc. Wrote AOU abstract with Nancy

14 May Another day of shitty ~~day~~ weather -- cold, cloudy + misty. Dabbled some at Plaque (finding the nest empty at 1900), a short nest watch at Road 1, finished scrubbing the floor in Andrew's room, finally started to unpack up at the cabin. Ian left today. Non-roosting (and a short nest watch) at Buckeye.

15 May Nice weather, finally! Unfortunately, the day was ruined by the Plaque nest stub falling to the ground! Watched at School Hill (Lazuli Bunting, W. Tanager), Plaque. Roosting at Plaque, champagne party at Red House

16 May A very nice day indeed! A record breaking nest watch at Road 1,

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(16 May) lots of Plaque-watching, adding sawdust to their refurbished nest hole, first HNHR Brown Creeper on PO Hill, a big magpie-crow fight by the bunkhouse (over an early-fledged magpie nestling), and roosting at Plaque. Afterwards, Nancy + I met Pam + Walter at Will's for dessert, then champagne and a good talk at Red House. Mucho fun.

17 May OK day. Nice hot weather. More boring Plaque-watching, plus a check on School Hill. The latter looks serious about nesting in the Blue Oak, and I even reopened the hole up there, climbing up to the hole without a rope ladder. While watching at Plaque, I even saw a life bird, a MacGillivrays Warbler in the dense shrubbery outside of Linsdales old office. Roosting at Plaque, where I saw nothing!

18 May A pretty good day! Plaque finally looks serious about nesting in the cleaned up ~~[illegible]~~ old nest hole. Also, I'm lucky enough to discover School Hill hot at it with one fresh egg in the Blue Oak hole! Watched them a lot in the late afternoon for behavior (Roosting, too). Called Steve Jones (to cancel my scheduled German exam) Russ + Judy, and Pete Myers.

19 May More School Hill + Plaque watches on a very summer-like day. Had the priviledge of watching egg-laying at School Hill, and got some fairly good data on "packing" in the core birds there.

20 May A quickie nest watch at Road 1, egg-laying at School Hill, more frustration at Plaque. Roosting ~~[illegible]~~ again at School Hill.

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21 May Racked up another egg at School Hill (#4), watched a little at Plaque, a nest watch at School Hill, and roosting there. Very foggy in the morning, cold, cloudy + blustery in the evening.

22 May Watched at Plaque early. No egg yet, but it continues to look certain + soon. Routine nest watch at Road 1, another egg at School Hill. A really shitty day, weatherwise. Very windy, blustery, and cold.

23 May Another momentous day, as Plaque lays eggs, and tosses them both out!! Fantastic! See copious Plaque notes. That pretty well took care of the whole day.

24 May Both ♀♀ lay at Plaque today, no egg tossing. Laurie Drinkwater arrived today, and we went up to School Hill so I could check the nest there. Nancy + Owen return from Berkeley, a fun dinner in the Bunkhouse, and a nice fireside talk with Laurie at the cabin.

25 May Only ♀494 lays at Plaque today. Desperate for something else to do, Laurie + I walk halfway up to the Arnold, poking around ARF for awhile. Also helped Pam move ladders around, and banded babies at Road 1 (Last trip up to that nest for this year).

26 May Both ♀♀ lay at Plaque, though ♀496 late. After getting up to egg #5, Laurie + I go for a picnic lunch on Red Hill. She leaves afterwards. Fooled around in the afternoon at Plaque, not accomplishing much. Going away dinner (Pot luck) for Lois + Betty at the School House!

27 May One more egg at Plaque, probably laid by ♀494

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(27 May) a routine nest watch at Road 1, ~~no~~ a watch for babies + renesting at Road 3, Roosting at Buckeye. Weather finally starting to improve.

28 May A surprise late egg by ♀496 at Plaque. Watched some more at Road 3 (checked the nest hole there) and did a short nest watch at Road 1, Roosting at School Hill

29 May ~~Then~~ Slept late, transcribed Plaque notes, checked up on School Hill west before dragging the ladder up there with Walter to band the babies. Roosting at Buckeye.

30 May Discover Road 3 with one egg in the earlier nest hole, so I spend a good bit of the day watching them. Started compiling Road 1 nestwatches, then went into town with the whole crew for Pizza, a Sherlock Holmes movie, and ice cream

31 May Road 3 from dawn till 0900, a good nestwatch at Road 1, then some relaxing, and back out to Road 3 for dusk + roosting

1 June Not a good day. Road 3 laid an egg this morning, but I managed to break the thing. Great. One of the School Hill eggs started to hatch today, and I helped Walter get to the nest at Westgate

2 June Another egg at Road 3, which I managed not to break, a quick nestwatch at Road 1, more hatching action at School Hill.

3 June More Road 3, School Hill; Also, a short unproductive watch at Gazebo + Plaque. Managed to find the nest at Blom 2, anyway.

4 June Watched at Road 1, explored Warp 5, watched at Road 3. Opened the nest at Blom 2, a first for me

5 June Leave for Berkeley with Nancy. Rebecca with

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(5 June) Judy. Etc.

6 June Berkeley, Chez Panisse with Nancy.

7 June Berkeley, graduation, trailer to Hastings, roosting at School Hill

8 June Listened to Walters HBS talk before he left this morning, then watched at Road 1, checked the nest at Road 3, weighed babies at Plaque + School Hill. Also checked the "nest" (failed again?) at Buckeye, seeing a guy with a dog + a rifle on Buckeye, nr the Hastings fenceline. Gwen + Nancy returned today. Dinner at Red House with Pam

9 June Very little gumption today. Watched some at Buckeye (definitely failed again), weighed + marked the Plaque nestlings, checked for new nests at Hay Blom, Low Hay + 1800. Roosting at Road 3 Dinner in the bunkhouse with Pam.

10 June Watched at Road 1, checked holes up on the Arnold, checked the nest at Plaque + School Hill, wandered over to Gazebo to see if any revolution action, checked the nest hole at Blom-One, Roosting canceled. Ran 4 miles today.

11 June Even less gumption today. Except for seeing a family of Pam's Orioles near Buckeye, I pretty much wasted 4 hrs up there. Checked the nest + Plaque + Road 3 (the latter near hatching), cleaned + organized up in the cabin, roosting at Road 3.

12 June Diddled around the road in the AM, finding an Oriole nest, then checked nests at Plaque, Road 3, School Hill. Ran 5 miles today. Dessert at Red House. Nancy's pissed off.

13 June Wandered around at Hay Blom, Low Hay, + 1800, checked the

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Hastings Reservation

13 June nest at Road 3. Movie in town, "A Tale of Two Cities."
A Friday the 13th, and I survived.

14 June A good "juvenile watch" at Road 1, a nest check of Road 3, Plaque, School Hill, helped Walter set up a mist net at Westgate, a look around ARF 2, Roosting at LA2

15 June A nest + group watch at Road 3, then I made a cake for Nancy's going away party, then a nest check at Road 3. A trip to the Safeway at Mid Valley, then return via Cachagua with Nancy. A pleasant trip. Then a short run, and Nancy's going away party at Red House, complete with Munns champagne, and decadent desserts. A sad occasion, nonetheless

16 June Watched at 1800 early, getting a complete census in before Frank arrived at 10am. Grantsmanship, and nest checks at Plaque, Road 3, and School Hill followed. Dinner up at Red House on Nancy's last day here.

17 June Nancy left this morning! Sob! She will be sorely missed. A photo session opened the day, then grant shit the rest of the day. Frank took Pam, Walt + I out to dinner at Wills, which was very pleasant

18 June A truly shitty day. A worthless watch at Hay-Blom, a stolen ½ ladder (left briefly at Westgate), plus Psychodramas! Best to forget about it. The only saving feature was that we banded #600 + #601 at Gate. Yeah!

19 June A little better today. Mediocre watches at Gazebo + Blom One, a good nest check at School Hill, and a very good juvenile watch at 1800. Non-roosting at School Hill, dessert at the Hardys.

Journal

Hastings Reservation

20 June A good day, with good juvenile watches at Road 1 and 1800. Roosting at Buckeye. Nest check at Plague. Ian Tate arrives late.

21 June An OK day, watching at Finch, measuring babies at School Hill, watching 1800, Roosting Road 3, Summer solstice party and slide show in the cabin.

22 June Mediocre watches at Road 1 + 1800, a Plague nest check, non-roosting at Buckeye. Wrote a lot of letters today.

23 June Wasted the morning on Haystack Hill + 1800. Banded + measured at School Hill. Blown roosting Buckeye

24 June Finch + Road 1 in the morning, Plague weighing day, Gazebo in the afternoon, Roosting at Plague. Dessert at Red House, plus Ruth + Didi.

25 June Nest at 1500, Road 1, School Hill Nest check, 1800. Roosting at Buckeye

26 June Nest check at Plague, then Berkeley!

27 June Berkeley, then return for dinner at Toots Lagoon, the "Count of Monte Cristo" at the O Village library.

28 June Grant fooling around all day. Hot!

29 June Interesting, brooding sort of day. Cloudy, even a few drops of rain in the morning. I finally watched successfully at Hay-Blom, then ~~wa~~ checked the nest at Road 3, then worked on the grant proposal. Dessert at Red House.

30 June More interesting weather. Cloudy, cool, with measureable rain in the morning. I watched at Low Hay + 1900, checked Plague and the Cooper's Hawk nest (young fledging), slept and compiled nest watches

Journal

Hastings Reservation

1 July More refreshing, cloudy weather. I watched at Low Hay in the AM, compiled Road 1 nest watches, napped, then watched 1800 in the afternoon. Roosting at Buckeye.

2 July Rain! a real rainy day, with about an inch falling, breaking the July record. Compilation + data working all day, not much else.

3 July Foggy in the AM, clearing in the PM. Office work, a "dog chase" on Blomquist, banding of Finch babies, nest check at Road 3, and a sign dedication ceremony at "La Maison Rouge." Roosting at 1500.

4 July Watched at Low Hay + 1800 on a clear day. Roosting at Warp 5.

5 July a worthless AM watch at Hay-Blom-Low Hay, a grocery run, a BBQ at Red House. Golden Eagle in the Plague nest tree.

6 July Fooled around at Still's Gate in the AM, then an excellent Juv. Dominance watch at 1800 in the afternoon. Roosting at Buckeye.

7 July Watched on Haystack in the morning, banded RB with walter after lunch, then finished up the 1800 dominance table in the PM. Ran up to the big switchback par ARF. Gwen found bird #600 Road killed today. Too bad.

8 July Low Hay in the AM, Still in the PM, good watches both. Roosting at Buckeye.

9 July Accomplished nothing watching at Still in the AM (except writing a letter to Nancy) and a nest watch (shock!) at Plague in the PM. Roosting at Buckeye.

Journal

Hastings Reservation

10 July Today was the annual pilgrimage to Tassahara Hot Springs with Pam + Walter, Sandy, + Joan Griffin. Gwen didn't come, as she was planning to go Sunday with friends. A very good time, even seeing my first Dipper, and an old (from this spring) nest at the exact spot that Larry, Nancy + I swam last year. Also Orioles (nest) 2-3 (ñO/) Wrens,

11 July Low productivity today. Watched poorly at ~~Blomo~~ Hay. Blom, Then went into town for shopping, movies, bank. The movie at the CV library was Willie Shakespeares Henry VI a loser in my book. Dinner at the Clam Box was also poor.

12 July Not a great day. I start by finding 4/5 of the Plague nestlings dead in the hole. Grim. Then news of some Lamb-affiliates operating a little camp in East Ravine. Watched a little at Road 1, scouted for a Finch Creek swimming hole. Dinner in the cabin with Michael + Hillary, friends of Gwen.

13 July Watched poorly at Hay Blom + School Hill, mostly prepared to go to Mono Lake tomorrow. Roosting at Buckeye.

14 July Left for Mono Lake at 0700. A very nice drive, stopping in the Sierras along Tioga pass Road for Hermit Thrush, Hermit warbler (♂ + ♀ feeding young), Audubon's Warbler, ~~Wilson's Warbler~~ McGillivrays warbler, Junco, House Wren (7000 feet), Dusky (?) Flycatcher, Clark's Nutcracker, White-crowned Sparrow (8-10000 ft). Also stopped at Tioga Meadow, but Paul Sherman wasn't there. Kicked around Lee Vining canyon briefly, seeing Grosbeaks. Arrived at Dave's cabin at 1830.

15 July Left for Krakatoa. Banding at night. Dave Herbst, Dave, Suzanne, Nathalie

16 July Nestwatches, night banding. Paul Sherman, Marty

Journal

Hastings Reservation

(16 July) Morton, and Paul's FA Mike came out today. Good time in the evening after banding on L. Tahiti

17 July Suzanne, Dave Herbst go off today, Willie (?) a MC volunteer comes on. Nest watches, night banding on Twain.

18 July Dave drops me off at Land Bridge, & struggle 1½ miles to car with all my gear. Begin return. Stop at Tioga Meadow (Paul still not there), then Yosemite Valley. Beautiful, but crowded. Acorn Woodpecker + N. Oriole in El Capitan meadow, and a large Falcon (Peregrine?) flying over the face of El cap. Return to Hastings at 1930.

19 July Work on the AOU poster, Blom-one watch reorganization. Stolen gatechain and outgoing mail. grocery run, My Fair Lady at Hidden Valley (very good!). Steve Glicksman, Gloria Caldwell et al.

20 July More AOU fooling around. Champagne up at Red House. Banded babies at Black Oak (last of the season).

21 July Checked the hole at Blom one, which I had much trouble with. AOU poster stuff. weird party up in the cabin w/ Hardyr. Cows in Madera Canyon.

22 July Watched at Finch and Road 3, scouted the creek for a swimming hole (trying out a few spots), then built one 100 yrds down from the gate in the PM. Roosting at Blom 2. Called Nancy.

23 July Watched at Road 3, and checked the nest hole there. Worked some more on the swimminghole, helped Walter set an ambush at Warp 5, Sandy's last day here. Forgot about the ultra-successful ambush at Gate, capturing 2 NB ♂♂

24 July Another successful ambush, nailing 4 birds at Warp 5.

Journal

Hastings Reservation

(24 July) Worked on the AOU poster, napped, watched a little at Road 3 the rest of the day. Swimming hole action, too, of course. Sandy left this afternoon.

25 July Leave for Berkeley at 0930 with Gwen, BP Cher-cat) and all her gear. Nancy arrives at labs late. Salmon at the myers

26 July Berkeley, AOU work, dinner with Gwen, Nancy + friends

27 July Return to Hastings.

28 July Moving! Swimming hole

29 July Watched at Finch, swimming hole action, worked on AOU data. Injured juvenile from Road 3.

30 July More Finch stuff, grocery run, swimming hole action. dinner with the Hardys.

31 July Bugs, a quick Finch watch, AOU poster.

1 Aug A quick Finch watch, swimming, Ambush set up at Blom 2, AOU poster stuff.

2 Aug Failed Ambush, AOU

3 Aug ~~Leave for Berkeley~~ AOU

4 Aug Leave for Berkeley, then Ft. Collins, etc. See journal supplement.

20 Aug I return to Hastings ~~the~~ to find that 400 acres of Poison ~~Oak~~ Oak Hill burned badly in a fire started from the road on Sunday afternoon, 10 Aug. Damage to watched groups were (1) Road 1: Loss of sycamore nest + roost tree, plus a few storage holes contained therein. (2) Finch, which lost the top stub of the sycamore containing storage holes and pre-1980 nest holes.

Journal

Hastings Reservation

(20 Aug) It probably fell before the fire, actually.

21 Aug Spent the entire day getting reorganized, collecting insects, etc.

22 Aug Explored some of PO Hill + Post Flat above Road 3. Things do not look good. I saw lots of woodpeckers up there, but no standing granaries. Losses from the fire appear to have been severe. Also watched some at Road 3, Finch, + Road 1

23 Aug Birthday city! A new(er) refrigerator for the cabin, with Claude + Maggies help. Swimming hole action, a fire break around the Road 1 granary, and an excellent watch at 1800. Low Key party in the cabin after dinner with the Hardy's.

24 Aug A fairly low-value morning watching at 1500, Hay Blom, and Low Hay. Swimming hole action, reading, and that was about it.

25 Aug Watched well at Road 1 + Plague, poorly at Road 3 + Finch. Walter + I surveyed the scene of destruction on PO Hill with walters and things look grim. The "Revolution" granary, plus 2 others were destroyed. PO Hill #1 and the Post Flat groups may have come through in OK shape, however. Poorwill

26 Aug Flow at the crossings finally ended today. Too Bad. I watched with moderate success at Hay Blom + Low Hay. Went swimming, then grocery shopping. Roosting at Blom 2

27 Aug Went up to the Arnold + watched very successfully at Lambert, poorly elsewhere. Massive swimming hole cleanup.

28 Aug Set an ambush at Blom 2, Bugs, and that was it

29 Aug Successful (of sorts) ambush at Blom 2. Wood duck for the reservation, Clemys (28 Aug) for the swimming hole

Journal

Hastings Reservation

30 Aug Poor watches at ~~Hwy~~ Blom-One + Gazebo, dinner at Red House with Pam + the Griffins.

31 Aug Very successful watch at 1500. Talked to Nancy, played mando with Andrew Griffin

1 Sept Decent watch at School Hill, reading, bugs, swimming. The usual

2-4 Sept Berkeley, returning pm for bugs. Truffles at the Griffins.

5 Sept Successful watch for Juv dominance at 1500, then took the rest of the day off, more or less, reading, sorting bugs, mandolin playing.

6 Sept Nice, but long + tiring hike up to Junipera Serra with Jim. In the burned Sugar Pine - Culter Pine forest at the summit, saw Brown Creeper(1) Red Breasted (4) and White Breasted (1) Nuthatch, Audubon's warbler (5). (Including juvs), ~~8~~ Hermit warbler (3), Wilson's warbler (2), Black-throated Gray warbler (1), Hairy Woodpecker (6)! (all around burned forest), Plain Titmouse (5) Downy woodpecker (1), and one very lonely, Karriting Acorn Woodpekker (no granaries seen). On way up, many AW, mountain quail (10) Golden Eagle (1), Canyon wren (3)

7 Sept Sorted bugs, helped the Hardys fell a dead Monterey Pine next to the Davis', cool + cloudy.

8 Sept A nice change of pace day: overcast with occasional light rain. Watched with partial success at Buckeye, then took my copy of D.S. Wilson up Madone Canyon to read + explore. Found a dear kill (mountain lion, perhaps?) visited Chongo + Chongo springs Weird Birthday party for Claude

Journal

Hastings Reservation

9 Sept Watched poorly at Road 3, well at the Gate groups. That's it? Reading, swimming, etc.

10 Sept Spent the AM fooling around watching a revolution "near Arnold 3". Swimming, reading, wrote a letter to Paul, blah, blah.

11 Sept Watched at LA2 well, poorly at UA2 & A1. Walter returned from trip back east last night. A grim roosting at Still. Bugs, once again. Dessert at Red House

12 Sept Read, sorted a few bugs, administration stuff, quick trip to the swimming hole, sunbathing. A very low-key day.

13 Sept Fairly successful watching at "Y" (School Hill birds) and Gazebo. Cold, foggy & windy.

14 Sept Spent the whole day in the cabin, reading, writing letters, etc. Did sort & weigh bugs.

15 Sept Watched with moderate success at Low Hay & Hay Blom. Reading, etc.

16 Sept Spent the entire day with Krebs & Davies.

17 Sept Watched with pretty good luck at Rd 1, Finch & Rd 3. Then went up to the Arnold to set out the Black Oak & Golden oak acorn traps there, picked up the bugs, watched roosting at Lambert. Cool & Cloudy

18 Sept Read, collected bugs. That's all? Cool & Cloudy, Roosting Still

19 Sept Read, patched up (or tried to patch up) the "killer rockhole" at School Hill. Clear, finally but cool!

20 Sept Read, talked computer with Walter, watched at 1800

21 Sept Read, bugs, prepped for Berkeley. watched a little at Plaque

Journal

Hastings Reservation

22-26 Sept Berkeley, orals set-up hassles etc
Bab-1 Bobcat at ARF 26 Sept. Say's Phoebe, kinglets back 27 Sept

26-29 Sept Frank at Hastings, lots of good eating, very little studying

30 Sept An extremely hot day reaching 103°. Watched acorn storage at Hay Blom saw a fine Bobcat along the lane, noted the return of Golden Crowned sparrows, read and hangout at the swimming hole.

1 Oct Another blistering day. Fooled around watching at the Road, swimming, reading, etc. Roosting at Lambert

2 Oct Accomplished little today. Collected bugs. Hot!

3 Oct Went grocery shopping early today, swimming, some studying. Roosting at Lambert,

4 Oct Walter & I started acorn crop surveys on the Arnold today. Some reading. Dessert & some pickin & grinnin at the Griffins.

5 Oct Acorn crop survey along the Road. Reading, swimming, etc.

6 Oct Acorn crop survey along Big Creek. etc.

7 Oct " " " Haystack & School Hill.

8 Oct Studying all day

9 Oct Semi studying all day

9 Nov Hello! Remember me? After non-stop orals studying for a month, I'm now ready for action once again. Watched some this afternoon at 1800 & Plaque, plus seeing a lot of School Hill birds at Y. Wrote letters, etc. cleaned. German

10 Nov Did well watching at Finch, Okat Road 1. Cleaned up the cabin, made & brick & board bookcase. Slowly recuperating. Did no German tonight. Tsk, tsk.

Journal

Hastings Reservation

11 Nov Not much done today: watched some at Gate & westgate, partially dismantled the swimming hole dam (sob!), went grocery shopping early in the day. Wrote letters, german, etc. Called Scott.

12 Nov China Camp - Pine Ridge, Los Padres National Forest, Monterey Co.
I accompanied Jim Griffin on the 16-mile Pine ridge hike, all around 4000' elevation. The acorn crop was phenomenal, as we were stepping on fallen acorns all day. Golden Oak is by far the most common oak along the trail, and they all seemed to have a big mast year, ~~[illegible]~~ as the Q. chrysolepis at Hastings. Tanoak was locally abundant, and tanoak acorns were littering the ground in some areas. We only passed a few Black Oaks but, like at Hastings, they all seemed to have big years. Interestingly, all 3 of these have acorns that take two years to mature, ~~[illegible]~~ thus set seed at the same time (spring 1979) that Valley Oaks, Blue Oaks, and Live Oaks set seed for their mast year in 1979. There may be something to this climatic factor business I also mentioned to Jim that at Hastings, Q. lobata did OK at low elevations (along the creek) but stunk on the hilltops (1980). He pointed out that the valley crops had been frozen out several years in a row, but there was no freeze in 1980, suggesting that the low-lying trees ~~also~~ had more stored reserves. Hmm! Another point: 2-year acorn trees tend to occur at higher elevations: Shorter growing season → 2 year maturity perhaps?

Also on Field trip saw 1♂ Varied Thrush, 3 fox sparrows 40 Hairy Woodpeckers, 5-6 group of AW (one with at least 7 birds) etc.

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Hastings Reservation

13 Nov Lowkey day: Watched a bit at Rd 3, weighed some acorns, etc. Small party at the Griffins with the Pattons + Joanne Daly.

14 Nov Good watch at Rd 1, then some acorn weighing, then bedlam as the mammalogy class with Kurt + Judy et al. Steve Sherwood + I played some banjer + mandolin + gitar. Dinner with the mammalogy class, lots of carousing, etc.

15 Nov Little work. A touch of german in the morning a walk up to the Madrone canyon camp (complete with outrageous biker magazine), basic partying, etc.

16 Nov Mammalogy class leaves today,

17 Nov Watched well at Rd 3, Rd 1. Frank arrives late

18-19 Nov Frank here, grant rewrite

20-25 Nov Berkeley, Emlen seminar, Pain's ecolunch, German test, Doc Watson etc.

26 Nov Return to Hastings, Roadrunner cabin fouled with woodrat garbage. Clean-up. Laurie arrives late for Thanksgiving weekend

27 Nov Walk up S Hill, Thanksgiving dinner at the Griffins.

28 Nov H. Lobos, Andrew Molera Beach. Dinner at Red House

29 Nov Walk up to the Arnold, with some interesting Hermit Thrush behavior at the Arnold Spring (see sp. acct.) "Casablanca" at the Hardy's

30 Nov Laurie leaves in the AM. I watch at Buckeye

1 Dec Watch at Y, SH west.

2 Dec Watched poorly at Low Hay, OK at Hay Blom

Journal

Hastings Reservation

3 Dec Rain, finally! over 1½ inches according to Jim. I putter around the cabin, weigh acorns, work on grant proposal.

4 Dec Still a bit of rain in the morning, but then clearing. Cleaned up the cabin, weighed acorns. Blazing Saddles fiasco at the Hardys.

5 Dec Watched OK at 1500 + 1800, Followed by dinner at Red House, then a great movie, Laurence of Arabia, at the Carmel Valley Library.

6 Dec Worked on the grant proposal, dull.

7-14 Dec Hectic week in Berkeley, grant proposal, electrophoresis, etc. Museum + Zoo Christmas parties. Return to Hasting around noon 14 Dec. Dave + Suzanne arrive for a visit around 1630 hrs.

15 Dec Quite a day, as Dave gives me a good kick in the ass to go out + try to catch Hermit Thrushes. We run Pam's nets at the water trough, and set up three on the Still water trough, and catch ~~[illegible]~~ and color band 12 Hermit Thrushes! Wow! I felt terrible in some ways since I had to break into Red House, stole Pam's bands, used her mist net poles, Walter's mist nets. ♂ Varied Thrush

16 Dec A bit of banding in the AM only at the Stl trough (Johns trap run preempted us from Big Creek) yields 4 birds, 3 unbanded, leaving banding total at 15. Then we drive into Monterey, and get a good show of diving + underwater swimming by Eared, Horned, + W. Grebes as well as Surf Scoters at Fishermans wharf. Really impressive. Also, a Ferruginous Hawk in Carmel Valley at the Marble Ranch

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Hastings Reservation

17 Dec Dave, Suzanne & I walk up to the Arnold in the morning, seeing a ♀ Varied Thrush. On the way down, I finally stop to go down and see the Ponderosa Pine, and its 3 or 4 saplings nearby. At the bottom of the ridge near Finch Creek, we stumble into a huge bivouac of Ladybeetles

18 Dec Surveyed SHill for HTs, with poor results (seen HT notes)

19 Dec Watched for thrushes along Big Creek, watched woodpeckers at 1500.

20 Dec Watched with fair success at Lower Haystack in the AM, fooled around with the grant in the p.m, met Mary Peacock and her boyfriend in the afternoon. Christmas party at the Griffins, and I get Gahan Wilson cartoon book.

21 Dec Watched a bit at Plaque, doodled with the Grant, dinner at Red House after successfully banding one more thrush. Also a visit to the Davis'. Light rain.

22 Dec Foggy, misty in the morning. I clean house, etc. Trip into town in the afternoon. Call Mom + Bob, Aunt Vonnie.

23 Dec Watch at SHill, look some more for Hermit Thrushes, that's all

24 Dec Run the Hermit Thrush nets in the late morning - afternoon, Christmas Eve visit to the Hardy's, Open presents from Mom + Bob

25 Dec Christmas, run nets in the morning, a nice walk up Red Hill with Pam, Walter, & Ian Tate, a superb Christmas dinner at Red House.

26 Dec Trip to Big Sur with Pam, Walter, Ian Tate. Pfeiffer State Park, Sycamore canyon beach, Old Coast Road, "Green Flash" etc.

R.C.
1980

R. L. Mumme

Journal

Hastings Reservation

27 Dec — Spent all day running the Hermit Thrush nets along Big Creek, with some success, catching six birds. Also saw a winter wren

28 Dec — Assisted Walter with a successful ambush at Warp 5
Left for Berkeley, then Mono Lake in the afternoon.

29 Dec — Drove to Mono Lake with Dave Winkler + Brian McCaffery, Rough-legged Hawk (lifer) along Carson Valley Plain. Arrived at Mono ca 1600 hrs.

30 Dec — Scouted Rattlesnake gulch with Wink, Brian + Dave Gaines

31 Dec — Mono Christmas Bird Count, I go with Kathy Teare and "Cheryl" from Lake Tahoe. We do allright with the Dickies. Our list was as follows: Our area was Williamson Butte, Horse Meadow, Cain Ranch, Lee Vining dump, and the lake between Lee Vining Tufa + Navy Beach.

Eared Grebe	3
Ruddy Duck	4
Roughlegged Hawk	4
Red-tailed Hawk	7
Marsh Hawk	2
Cal Gull	100
Hairy Woodpecker	1
RS Flicker	5
Stellers Jay	15
Black-billed Magpie	15
Raven	1
Common Crow	2
Clark's Nutcracker	35
Mountain Chickadee	15
Coopers Hawk	1
White-breasted Nuthatch	1
Brown Creeper	1
Ruby-crowned Kinglet	1
Bushtit	27
Canyon Wren	1
Bewick's Wren	3
Water Pipit	4
Yellow-rumped (Audubons) Warbler	1
House ~~Finch~~ Sparrow	20
Cassins Finch	8
Am. Goldfinch	3
White-crowned Sparrow	7
D. Eyed Junco (one slatecolored)	22
Song Sparrow	1

1980 R.L. Mumme

Melanerpes formiciuorus

NEST WATCH

Buckeye

14 May 1700 (1600) - 1830 (1730)

Blk nearly touching lower face
0.00 ♂ 424 (?) wavy white line in between
9.50 out
10.20 down
20.00 out
20.50 down
23.20 out
23.40 down
44.30 out
45.50 down
54.00 out
55.00 down
58.00 leaves (nutrus).
30.00 end

Something like this

I suspect ♂ 424.
Smooth red-white border.
Very mustached appearance

1980 R. L. Mumme

Melanerpes formicivorus
NEST WATCH

Lower Haystack

2 May 0645 (0545) – 0830 (0730)

0.00 Nest empty
25.00 ♂307 enters
29.20 ♂307 leaves (intruder)
37.00 ♀515 at nest, suspicious, flies off.
47.00 ♂307 enters
4.00 out
5.40 leaves
22.30 ♂307 enters
26.00 out (intruder)
26.30 leaves
28.00 ♀515 at nest, suspicious
29.00 flies off
34.00 ♂307 enters
38.00 ♀515 at nest, suspicious
39.00 flies off
♂307 leaves
45.00 end watch

♀524 • (1 Green - white (N) / white) School Hill —

3 May 0800

00.00 ♂ out
12.20 ♀515 replaces
18.00 leaves
21.50 ♀515 enters, Coopers Hawk,
32.00 out alarm given by ♂♂, ♀ at hole, entered pronto!
32.20 down
38.20 leaves
39.11 ♂307 enters
43.00 leaves
44.40 ♀515 enters
~~44~~ 48.00 leaves ♂521 intruding from plague
54.10 ♀515 enters
59.00 leaves
00.00 ♂307 enters
4.00 leaves
5.20 ♀515 enters
10.20 leaves
12.20 ♂307 enters (D?)
15.40 ♀515 replaces
19.40 leaves
24.20 ♀515 enters
29.20 ♀515 leaves
29.50 ♂307 enters
35.30 ♀515 replaces
41.20 leaves
46.30 ♀515 enters

52.30 ♀515 leaves
55.40 ♀515 enters
1.00 ♀ leaves
7.20 ♀515 enters
15.10 ♂307 replaces
18.20 leaves
21.20 ♀515 enters
29.10 leaves
30.00 end, nest empty

1980 R.L. Mumme

Melanerpes formicivorus

NEST WATCH

Lower Haystack

6 May 1110 (1010) - 1340 (1240) 150 minutes

0.00 ♂511 in
6.00 ♀515 (2) replaces
19.00 ♂307 (2) "
25.00 head out
32.00 ♀515 (2) replaces
45.40 ♂461 (2) "
45.50 ♂511 (2) enters,
leaves
46.20 ♂307, ♀515 visit, leave
48.40 ♀511 (2) enters
♂461 leaves
55.50 ♂307 (3) enters
♀515 leaves (FS)
56.20 ♂511 (2) replaces
57.00 ♀515 (2) replaces
57.30 ♂461 (2) "
58.00 " out
59.30 ♀515 (2) replaces
♂461 leaves with (FS)
2.10 ♂511 at nest
♀515 leaves
2.20 ♂461 (2) enters
♂511 flies off
5.50 ♂461 out
23.40 ♀515 (2) replaces

42.00 ♂511 (1) enters
♀515 leaves
50.10 ♂307 (1) replaces
52.20 ♀515 (2) enters
♂307 leaves
56.00 ♂307 (2) enters
♀515 leaves
56.40 ♂511 (2) replaces
2.50 ♂461 at nest (Tipulid) leaves
3.40 ♀515 (1) replaces ♂511
4.00 ♂307 (2) replaces ♀515
7.20 ♀515 (2) enters
♂307 leaves
16.50 ♂307 (2) enters
♀515 leaves
24.20 ♀515 (2) replaces
25.00 leaves
25.30 ♀515 (1) enters
27.50 ♂511 (1) enters
♀515 leaves
30.00 end

1980 R.L. Mumme

Melanerpes formicivorus

NEST WATCH

Lower Haystack — Hastings Reservation

9 May 1435 (1335) - 1715 (1615) 160 minutes

0.00 ? home
16.20 ♀515 (3) enters
17.00 ? leaves
0.00 ♀515 still down
22.50 ♀515 leaves
34.00 ♀515 (2) enters
4.00 ♀515 leaves

8.50 ♂461 (2) replaces
16.00 ♀515 (2) enters
♂461 out
16.20 both leave
19.00 ♀515 (1) enters
22.10 ♂511 (2) replaces
25.40 ♀515 (2) replaces (acorns?)
40.00 end

Melanerpes formicivorus

Buckeye — Hastings Reservation

7 April — Tried to watch roosting here, but nobody came to last years nest hole. A great commotion (Karrits, nutcas) from the granary until very late made me suspect pre-roost mounting and roosting there.

8 April — Wierd roosting, learning nothing. Very late.

9 April — Sunday + I tried to watch here again. Very late again, nothing certain.

24 April — Watched Roosting at the nest hole here tonight, and
←→ it was definitely ♂234 LBlue/White-DPink.

6 May — I flush a bird out of the low hole in the granary. A new nest!

14 May — A dull nest watch here, plus roosting, when as far as I could tell, nobody roosted in the nest.

27 May — Watched roosting at nest #3 (in last year's hole), and I believe it was ♂234. He entered the hole first, then ♂252, then immediately a bird flew out, landed at the hole again. I think it was ♂252 that flew out, meaning ♂234 roosted.

29 May — Roosting again, but I see nothing! I hope these guys haven't failed again.

8 June — I come up here at 1530 to check what I thought was the nest with 4 eggs, but I see NUTHIN! There were 4 eggs 6 June, none laid 7 June. Another failure? Perhaps I am not seeing the eggs.

9 June — Start watch 0820 from hide at granary, 1100. There's been zero interest in the "nest" hole, or anyother hole for that matter. All 4 ♂♂ seen well, plus a ♀ that my quick

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Buckeye

(9 June) suggested was ♀483 Red —/— ·/—. 1115, moved hide over for a better view of the granary. ♀483 is here, but no "extra" ♀♀.

11 June Starting watch at granary at 0900. A quick look at a ♀, a few (F), and the usual ♂♂ is all I get for 4 hrs. Plus some banded orioles for Pam. End 1300.

20 June Roosting, but I'm not sure who roosted.

22 June Roosting "

23 June Another Blown roosting, as the bird that was in as I arrived stayed in. Don't think it was ♂424, Low connector

25 June "Low connector" Roosts again who is he?
(28 June)
According to Gwen, he is ♂252 so I guess he roosted on 23 June + 25 June He also may have roosted alone on 22 June as I got a glimpse of something that looked like a metal band

1 July Roosting, "Low connector" in as I get there, stayed in. Presume ♂252.

6 July Roosting, and I believe (surprise) that it was ♂424!

8 July A bird already in as I arrive, no connecting lines at all, very delicate, ♀-like band. ♂424? Yes

9 July Roosting. ♂252 (or low connector, anyway) in as I arrived, but he left, and ♂424 roosted

13 July Roosting. Low connector ♂252 in as I arrived. Stayed

8 Sept Start watch 0830. ♂234 "/" (Blue/wht - Pink) shows up immediately, chases a Nuthatch from the granary. These guys still have lots of acorns lying around.

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Buckeye Hastings Res.

(8 sept) 1100, ♂252 DBlue/Yellow-LBlue, ♂504 White-Red/DBl-Wht(N), and J619 Yellow/LGreen all here, but nobody else seen. Very little activity. Cloudy, cool, and a very light rain today. End, Hold on, 1118, ♂234 gives good alarm calls as an imm Coopers Hawk (♂?) flies by and lands in the tree. ♂234 splits immediately. End 1125.

10 Oct Start 0830. These guys never ran out of 1979 acorns, and now seem to be just starting to store this year. About 50-100 new greenies in the granary. Old acorns predominate by a huge margin. 1130, pretty slow. Only ♂252, Metal/DBlue/Y-LBlue, ♂234 LBlue/Wht-DPnk, J619 Yellow/LGreen seen. J619 is looking somewhat female-like, but it looks too early to call for sure. Also ♀, which I read as Red/, so presumably ♀483, though not certain. Not a lot of storing action.

30 Nov Start 1300. 1430, very dull! ♂252 DBlue/Yellow-LBlue has been regular at the granary, doing a lot of head-pump karrits, but no sign of anyone else. End 1430.

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Plaque — Hastings Reservation

6 April Returning to the labs at 1730, we find lo + behold, a revolution in progress! At first, a NB♀ being chased viciously by another ♀, banded, which I do not believe was the 1st year ♀527. The breeding ♂473 did some casual chasing, especially when the "main event" participants ~~took~~ cruised by. The intruder was silent when being chased, but whenever left alone, she garricked a great deal. Walter hung a net in the granary, catches ♀527. My impression was that neither shee nor ♂521 were doing much chasing

7 April Out at 0645, and things are still hopping, although most of the activity has shifted to around the cabin. At least 3 and perhaps more ♀ intruders, the two fall babies from School Hill (♀523 + ♀524), an unbanded ♀, and perhaps one or two others. ♀524 seemed to be more prevalent in the skirmishes than ♀523, but confusion reigned supreme. ♀524 was getting chased a lot, as was the NB♀. ♂521 seemed to do a lot of chasing, with less by ♀522 and ♂473. ♀482 was not seen today, so she must certainly be gone. Not nearly as many garricks as yesterday, but more grappling, etc. I think I once saw ♀523 mount ♂521 once, but I could easily be mistaken. Things quieted down substantially by 0845.

1715, a NB♀ has become a "chaser", although it is still chased by ♀522. NB♀ drums, garricks, watas with ♂473, seems to have the upper hand. At one point, NB♀ + ♂473

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Plaque Hastings Reservation

(7 April) were wakaing ♀522 triod to chase ♀NB, whereupon,
→ ** → ♂473 pecked the hell out of ♀522. Also saw NB♀
wakaing with ♂521. ♀522 still doing a lot
of chasing NB♀ often chased by ♀522, but
she (presumed NB♀) chases another ♀NB peripheral to
the main event. ♂♂ also chase up by cabin,
but couldn't tell with who. No sign of School Hill
babies, so it looks bad for them. End 1815, with
these guys still at it.

8 April Things are hopping when I walk out at 0700. An hour
of watching reveals the following: ① A NB♀ is definitely
in! She is waka-trading with the 2 ♂♂, chasing other
intruder ♀♀ (both School Hill babies here this morning).
② ♀522 has taken a backseat. She has not chased
the NB ♀ this morning, and in fact has remained up
in the cabin area most of the morning, while the main
events have taken place down around the granary and the
sycamores. ♀522 has wakaied occassionally, a few times
"visited" by the ♂♂, but otherwise has kept a low profile.
③ I saw an UB♂ intruder this morning for the first
time, and I believe (but was never sure) he was getting
a sound chasing from the two ♂♂. 0840 ♀522 did chase
somebody out of the cabin blue oak, but I don't know who.
* Twice, ♂521 made preliminary attempts to mount the
♀NB, once getting a small peck (fide Walter). ♀NB drums
much. ♀522 wakas, occassionally garricks from cabin area.
End 1000.

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Plaque — Hastings Reservations

9 April The revolution saga continues here. Earlier, walter reported that the newly banded ♀ had disappeared, and the school Hill ♀♀ had taken the upper hand. The bad news was that in the early PM, the 2 Blomone ♀♀ had shown up, and were winning some influence. I started watching there at 1715, and the following resulted: ① The school Hill ♀♀ were relegated once again to the Locust and sycamore area by the Griffins ② The Blom-one ♀♀ were looking like sure winners; The only chasing going on was ♂521 chasing ♀496, who he seemed to dislike intensely.

*→ Other interesting points ① I actually saw a copulation! ♂473 mounted ♀496, and with a good tail twist, they kept good cloacal contact for 3-4 seconds. They were broken up by ♂521 chasing ♀496 ② His antipathy towards ♀496 notwithstanding, ♂521 seems to like ♀494 pretty well. Twice I saw the two birds exchange mountings, she mounting him first! ③ The School Hill ♀♀ "gave up" at 1740. I saw two birds flying south from the locusts, stop briefly at the Davis' pine trees, then continue on up toward School Hill. ④ ♀522 continues her lonely vigil, wakka ing to herself and occasionally ~~Harsh~~ garricking.

10 April Start @ 1440. Things have quieted down. The Blom-one ♀♀ have it wrapped. No sign of ♀ ~~496~~ 522. ♀494 chases an unknown intruder. ♂521 still not completely happy with ♀496. He nips at her once after 3-way OW wakka

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Plaque

(10 April) with ♂473 1455, a big mounting exchange between 2 birds, one a good looking copulation, but I couldn't see any bands. 1502. A good mounting copulation between ♀496 and ♂473. She mounted him briefly first, then he mounted her for 3-4 seconds, good tail twist, cloacal contact. Shortly after, ♂521 chased her again! He still don't like her! The ♀♀s here wakn with drooped wings, raised tails. Seems like a definite invitation. 1530, Another good copulation-mount between ♂473 and ♀496, I just saw the tail end, but good contact, 3-4 sec duration, etc. ~~1548 ♂521~~ 1555, ♂521 chases ♀496 again. He seemed to have disappeared for awhile 1605, Yet another copulation by ♂473 + ♀496. Cooper's Hawk flies by at 1616. 1611 A quick mount exchange (no cloacal contact) between ♂473 and (this time) ♀494!! 1615, ♂473 chases nuthatch End 1640.

11 April Start watch 0600. ♂473 and the 2 ♀♀ are definitely associating. ♂521 is not getting involved, 0625, wakn exchanges with ♂521 w/ ♀521 retraction, 3 more chases of ♀496. Still not completely happy with her. However, he is chasing her less than before. ♀496 flew to the other 3 birds, wakn with raised tail, drooped wings. She looks ready, more ready than ♀494. 0655, ♀496 flies to ♂473 + ♀494, another prolonged copulation, (♀496) she mounting him briefly, then ♂473 mounting ♀496, prolonged (4-5) sec

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(11 April) tail twist underneath, good cloacal contact. This time, ♀494 was right there watching to both of them, not doing
* anything, and ♂473 not doing anything to her. She was even giving the tail raise-wing droop wakas. I believe that makes 5 copulations between these two birds. 0710, Absolutely no sign of ♀522. In the big Blue Oak west of the lab, the 4 birds here chased an intruder, which flew toward the "Y" sycamores. I suspect it was a School Hill ♀: Both were reportedly hanging out there yesterday. 0715, the 2 ♀♀ are really following ♂473 around, and are really inviting mountings. ♀476 seems especially "brazen" and "immodest" ♂473 seems to refuse most of these offers, but not all. End 0730.

13 April Start watch 1505. Nobody around 1630. Mount exchange
* → between ♂521 + ♀494. 1635, ♀494 eats tipulid. Mounting was brief, no cloacal contact. ♀496 being very inconspicuous, staying away from the main area. 1730, Looks like ♂521 chasing ♀496 some more, but not completely certain of the participants. 1740, another
** very good copulation. ♂ mounted first, followed by long, long (5-7 sec) cloacal contact, tail twist, etc. At a great distance, could not tell who it was. End 1745.

14 April Start watch 0710. ♀496 definitely seems to have problems here. Did not see her, plus saw chases up on "Adobe Hill". Only encouraging sign was that while ♂521 + ♀494 near granary, I heard waka from Adobe Hill. End 0800
Trying again 0435. Cretins on Buckeye stealing Walters pack + rope ladder interrupt us, ♂521 still chasing ♀496

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Plaque

(14 April) I also thought I saw the tail end of a dominance interaction between ♂473 + ♂521, ♂473 perking, ♂521 chattering. However, I was not sure. Birds hanging out on "Adobe Hill."

15 April Start watch 0540. ♀496 definitely seems like an "adjunct" group member. 0600, she garricks in Big Blue Oak toward lower bark, ♂521 + ♀494 fly over
* there, and both seem to wildly chase her, then tolerate her in the Blue Oak. All 3 return to granary, watching, but ♂521 chases ♀496, ♀494 following. As soon as ♀496 away from granary, chasing subsides. 0720, Everybody in Blue Oak, looks peaceful. All fly to granary, ♂521 chases ♀496 again. Does not like her in the main area. 0740
** Dominance!! ♂473 a gentle peck to ♂521, he turns head. This occurred in the anvil of the nest tree. both ♂♂ were at the top, ♀494 was below. ♂521 is not tolerating ♀496 in the granary, so perhaps ♂473 will encourage him to accept her. End 0745. 0750. More dominance!! ♀494
** probing leaves, ♀496, perched nearby, flies directly at her scrap! This occurred in the Big Blue. 0805 for awhile, all 4 birds together, then a big confusing scrap, then all 4 together again.

S. Nishimura thought ♀494 chased ♀496 which makes more sense by later watches

Sandy reports another ♂473 ♀596 copulation at roosting on 11 April. See her notes.

17 April Start 0720. Things have still not settled down here. ♀476 relegated to far reaches of territory, even garricks twice in both Big Blue Oak, the Griffin sycamores, and numerous times up

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(17 April) toward Adobe Hill. Not a really good situation. What's worse, ♂521 chased ♀496, and it looked for sure that ♀494 joined in the pursuit, in fact taking the lead. The two ♀♀ seemed peaceful together in the sycamore at one point, and ♂521 + ♀496 looked "cool" in the Big Blue Oak. 0740, Have not yet seen ♂476. 0745. Another supplant by ♀494 of ♀496. End 0750

Back again at 1240. ♀496 gets chased by ♀494. a bad sign! ♀476 garricks from Big Blue, Adobe Hill. 1310, ♂521 + ♀476 in Cabin Blue oak, he doesn't chase her. 1330, ♂ Intruder wht-or/metal? Chased by ♂473. Probably ♂511 from Low Hay, white-Yellow/metal. Makes sense he'd be wandering, though Coopers Hawk at 1340! again at 1415, and this time, ♂473 gives alarm call!! Ground squirrel in granary, chased by ♂521, ♀494. End 1430

22 April Start watch 1150 after ignoring these guys far too long. 1210. a short watch, rain returns, but it looks like the situation is pretty much the same as 17 April. A ♀ was giving occassional garricks and karrits in the Big Blue Oak, while 3 other birds were fooling around in the Cabin Blue Oak and the non-Plaque Valley Oak.

24 April Start 0715. ♀496 still on the shit list, garricking in Griffin sycamores ♀494 flew over, sort of probed + pecked at her (♀494 probes ♀496). She still seems to be chased from main granary area, though, but only by ♂521. 0735, Another Coopers Hawk, more alarm calls by ♂473.

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26 April Start watch 1245. Nothing!

29 April Start 1010. All 4 here, looks like the SOS. ♂521 chased ♀496 as she attempted to fly to the nest tree. She is still reduced to wakas, turrits, and garricks from the upper barn area, sycamores, and Big Blue Oak. Not much in the way of nest signs, but I'll check anyway. 1110, ♀496 in nest tree alone, not chased! (Nobody else around) ♂473 joins her; friendly wakas she tail raises. A few moments later,
* I see a mounting between ♀496 and a bird that I'm certain was ♂473. Later, however ♂521 chased ♀496 from the nest tree. 1145. A NB ♀ here, chased briefly (but not out of the nest tree) by ♀496. Then ♀494 on the scene, both ♀♀ chase ♀NB out. ♂521 showed a very low-key response to this new ♀. End noon going to look for holes on adobe hill

1 May Again at 1400. Everybody here, but not much happening. Once more, ♂521 chases ♀496 from last year's nest tree

3 May Holy cow, ♂521 Blk-Yel/Or " / Metal intruding at Low Hay, at 0856! What's he up to?

4 May Start watch 0800. RS Hawk, ♀496 Alarm calls. 0843, another nifty copulation! Good cloacal contact, tail twist, 4 sec
*→ duration, in Plaque tree between ♀496 and ♂473! Good news for ♀496 is that ♂521 seems much more tolerant of her. Only one very mild supplant so far, though he has had numerous opportunities to chase her. 0900, a ♂ intruder here white/white (♂), probably ♂511 from Low Hay!
** 0915, ♀494 was definitely getting mildly chased, and I

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Plaque

(4 May) believe that the bird chasing her was ♀496! A real switcheroo! A quickie mount by ♂473 of ♀496 after tail-up waitas by the ♀. ♀494 was present, and moved over also tail-up. Saw ♂521 fly off toward the Y. 0925, all 4 birds in top of Plaque tree, looking pretty happy. They may pull it off yet! 0930, ♂521 + ♀496 alone in Plaque tree top, ♂521 mild supplant, but not bad at all! ♀496 poking around the top stub of the nest tree, digging away at that hole start. She still garricks occasionally, even from nest tree. 0945, ♀494 removes sawdust from hole start. Hope they don't nest there!

→ Watching from the cabin (idly) at 1840, another prolonged copulation between ♀496 and someone (I have to suspect ♂473)! Bird heard digging around in the cabin Blue Oak (fresh start there), plus I saw 3 birds remove acorns from the utility pole holes. Perhaps they'll nest there.

5 May Start 0705. ♀494 works on "nest hole" (top of upper UO) for 50 sec. ♂521 barfoglems caterpillar! (F). 0735, 2 ♀NB intruders here, much chasing + confusion. Couldn't really tell what was going on, who was chasing. Big Magpie fight, ♂521 chases! 0818, another mount or copulation between ♂473 + ♀496. As he mounted her, ♀494 flew over (♂521 was in sight, but not concerned). There followed what looked like some confusion + pecking, and I was unable to get it in the scope. Don't know if the mount resulted in a good cop. 2 ♂473 follows of ♀496. End 0830

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Maque

(5 May) Back at 0900, ♀496 working on hole for ~~[illegible]~~ about 2 min. 0905, these guys must be serious about nesting there, ♀494 now working on hole. 0907, another copulation, ♂473 and ♀496, this time ♂521 flew over. Didn't see exactly what happened. The last 3 cop-mounts I've seen have all taken place on the same horizontal branch at the northeast end of the nest tree. ♀494 bout of nest building 10 min, ending at 0913. 0919, ♀496 back building, only a 30 sec. bout. 0926, she's building again. Stops after 2.25. 0945, ♀494 starts bout, ends after 3 min. returns almost immediately, 5 more min. 0955, returns almost immediately again, ends after 3.30. 1005, ♀494 starts again! End after 3.20, this starts again, 10 more min. End 1020

6 May Start again 0725. ♀496 45 sec nest build bout. 0745, another, this 30 sec. 807. Uh Oh, 3 birds (all save for ♂521 fly off toward the Buckeye Hill canyon. Could be a bad sign. Haven't seen much work on the nest hole this morning. 0811, everybody back here. 0835, ♀494 30 sec hole bout End 0840, pretty boring

1800, again from cabin. Still dullsville. Birds mostly in granary but 3 may have been in the roost hole canyon for awhile

7 May Start 0745. A ♂ intruder here for awhile. 2 birds head up Buckeye canyon. Going looking:

1010, ♀494 looking out of a hole in a Blue Oak not 30 meters from the Hastings fence line, directly in Blue Oak (Buckeye) Canyon near the fork. A second bird

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Plaque

(7 May) accompanying her, karriting. I climb up to the hole, they continued to scold. An easy hole, requires only swami belt and one piece of webbing! Back later with peeper, I see nothing, but hole could be very deep. Will come back later with Walter to open it up. While I'm writing this, two birds fly up again.

1140, watching from cabin area. Not much going on. I'm going to go open the hole, I've decided. At 1300, I successfully opened my first nest hole, confirming no eggs! While I was there, 2 woodpeckers came by, karrited at me briefly, then flew away. We'll hope they nest in the hole. Very easy to get up to, no sweat.

8 May Start watch from portohide 0610. Going to check nest. Still no eggs. 0725, ♀494 at hole briefly, looks in, flies off. Once again, she was accompanied by another bird.
1020, Nothing else. Forgot to mention that at roosting last night, one bird karrited in tree, then joined karriting other birds up higher in the canyon. Just as I was leaving, a bird returned, obviously planning to roost in the hole. I scared it away, and I think it roosted in the 2nd tree (last years nest tree).

Trying again, watching from cabin area at 1230. A quick mount on the copulatorium by ♂473 of ♀ (presume) ♀. 1420, A definite dom. interaction, ♀494 urking, pecking at ♀496, while ♂473 below! End 1445.

Back for roosting, I see and here nothing!

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Plaque — Hastings Reservation

9 May Start watch again at 0715 from prospective nest hole in Buckeye canyon. Checked hole, nothing. 0915, a big fat zero, no visits, no nothin'. They seem to have lost interest in this hole.

0945 watching from Adobe Hill. All but ♂521 seen briefly in top of Plaque tree. 1010, a quickie mount exchange between ♂473 + a ♀ I think was ♀496.

1140, watching from behind labs, ♂473 follows ♀494. Seems like he may be doing it a lot, despite copulations with ♀496. Earlier, I flushed a bird from VO next to labs, where sleazy holes are.

1245 Bingo! Birds fly down there again, and I flush two birds out of a lousy looking hole in the Davis-Griffin office Valley Oak. Checking out (pretty easy, one length of extension ladder, no eggs! Good! I guess these guys are still getting primed. The hole is in a very thin dead stub, facing down and south. If they do indeed nest there, it could be a problem opening it, because the walls must be paper-thin. We'll see.

My impression today is that ♂473 is following ♀494, and ♀496 is sort of moving with them. ♂521 is the odd man out, and he seems to be spending all his time moving acorns around. It would be nice to get some data, but birds have been very difficult to watch, staying well-hidden in Plaque tree, and the Upper Barn tree. Roosting, I flush 1 out of the canyon hole, early. 3 others in VO by labs early, fly off toward canyon late.

1220 All but 8496 / 8496

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Plaque

10 May After checking both holes, start watch at 0700 at the lab Valley Oak hole. Intermittent light rain. 0740, rain heavier ♀496 comes to hole briefly, flies off.

0759 ♂473 at hole briefly, 0759.30, ♀494 enters hole. After 4 min, heads out. Raining pretty hard. 0806:50, ♂473 visits, flies off. 0812, She leaves. Checking nest

(Hot Damn!! One sweet fresh egg in the hole, laid without doubt by ♀494 Red-White/Red Great! The Dominant ♀, too, laying first.

1010, nobody close at nest, relieved by Nancy

1121, ♀494 working at hole at top of old nest tree. Why?

1208, Follow, ♂473 or ♀494. Good dom. interaction. On top stub of 2° tree, ♀494, good pecks at head ♀496, ♂473 nearby. Another Follow.

1340 (1240) Lots of Bluebird action, ♂521 over defending. Pr of Bluebirds seen in hole, one removing a wood chip (egg fragment?), ♂521 sticks his head in, actually enters lower hole.

1356, ♂521 comes to hole with an acorn bit! (he's a little early!

1452, ♀494, attended by ♂473 (call it a follow) looks into hole, flies off. ♂521 did the same a few minutes ago:

Just before I had checked hole, just making sure bluebird removed wood chip: It did!

Note: The Egg was laid at 0800 PDT, 0700 PST.

1210 94

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Plaque 1

(10 May) Nancy's now watching nest, I'm watching group. So far I've yet to see ♂473 and ♀494 apart 1630, two more nice cases of following of ♀494 by ♂473.

♂521 is definitely the one on all roost hole defenses. 4 cases now of defending nest hole from Bluebirds. He also defends the granary, and stays in the granary much more than the other birds

→ 1845, back at hole, relieving Sandy. Saw 2 more defenses of the hole by ♂521, but not much else

1849 ♂521 looks in, chases Nuttalls woodpecker

* Memo -- see Nancy's notes for an interesting dominance interaction between ♀♀ at nest.

1900 -- checked nest, 1 egg still 04

1907 -- ♂521 looks in

1913 -- yet another Bluebird defense by ♂521

* 1918 -- ♀ Metal/Green-B[ack] (N) / wht/ " " (N) Intruding:

→ Pecked at by ♂521, although not violently.

* It's ♀522 Back Home! How about That! I wonder what ♂473 and the 2 ♀♀ will say about that

1942 -- ♂521 chases Bluebirds. He looks in

Roosting, I believe I saw white or metal, and it was certainly not ♂473, who I saw outside the hole later. Therefore, probably ♀494 roosted alone in the nest

11 May Bird that roosted leaves at 0547 (0447). Check nest, still one marked egg!

10 May

1635 ♂ 521 alone;

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Plaque

(11 May) 0610 (0710) -- Bluebirds are back! Fed up with them, I shoot the male. Didn't really want to, but I sure didn't want them fucking up the nest. 0621 ♂521 chases ♀ Bluebird, looks in briefly. And another chase of ♀ " from nr. nest at 0623. 0625, looks in again! 0626 -- another chase by ♂521, looks in again 0654 -- "

708.40 709 710.40 -- ♀494 in about a minute and a half, head in + out all the time, check nest, still one marked egg.

0930 -- watching group. delayed follow of ♀~~403~~ 494 by ♂473. 1000, Another very nice bit of agression (4-5) between the ♀♀. ♀494 delivered a series of very sharp pecks to the head of ♀496, while on a small stub in the 2° tree. ♂473 wasn't in the immediate vicinity, but he did fly to the ♀♀ shortly thereafter.

* ♂473 + ♀494 may not be as tight as I thought. He initiated flight away from her.

Starting again at 1250 after nap!

♀496 has two "nobs" on right side of forehead

1340, another little chase by ♂521 against ♀496. Still doesn't like her all that much!

* → 1630 Dominance! The 2 ♀♀ together in the top of the 2° tree, sharp pecks to head of ♀496 given by ♀494.

1830. I relieve Sandy at nest. She saw nothing in 3 hours. I see nothing until roosting. ♀494 went in early, then a 2nd unknown bird, one flew out. Hope! Not abandoned yet, even though no egg laid today.

11 May 1980
1255 7496
1300 "

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Plaque

12 May Bad news, the nest may be abandoned! The bird that roosted last night emerged at 0550 (0450). Checking the nest, still one marked egg. The, nothing for 9 hours, through my watch, Walter's + Gwen's. Late in the PM I saw a bird fly to the nest tree, but checking it at 0600, still one egg. We cancelled around-the-clock watches after Gwen's watch, 1515 (1415). I checked the "canyon" hole at 1500, still nothing, although a bird did fly to the tree while I was hanging in it. Watching in the PM, a few idle trips up watertank hill and to Blom canyon, but that was all. I watch roosting up in the canyon hole, zero! Nancy watches the nest, One bird roosted

13 May Checked nest 0720, still one egg. watching nest again at 0730. 0845, Nothing! Calling it quits here.

* 1100, watching from Adobe Hill. 3 good follows of ♀494 by ♂473. 2 good independent pairs

1125 Dominance between ♂♂!! Both ♂♂ and ♀ on top

*→ of the 2° tree, ♂473 directs pecks at head of ♂521!! I believe that the ♀ present was ♀496, but not sure.

1135, ♂473 may have flown away from ♀494 (in cabin Blue Oak).

1150, Birds fly way up on Red Hill, on the ridge west of Jim's exclosure

* Aquilkie mount between ♂521 and ♀494, in the 2° tree at 1230. ♂473 flew over immediately.

Checked canyon hole at noon: Nothing. 1240, Birds ~~may be~~ working on a hole in the cabin Blue Oak!

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Plaque

(13 may) Watching again 1645. ♀494 + ♂473 together in top of Plaque tree, ♀496 flies from sycamores, mounts ♂473, he mounts her, no good cloacal contact, ♀494 comes over, but no aggression. ♀494 + ♂473 then fly off.

1720, another similar mount exchange, in the Plaque tree!

Roosting, I think one bird was in the nest tree, while another was last seen flying up toward Buckeye canyon.

14 may Checked the nest at 0945, still the one marked egg! Watching group at 1440. 1500, all seem to be down at Y, 1620, checked canyon hole. 1650 -- More ♀ dominance! ♀494 pecks at head of ♀496. ♂473 had been nearby, but just flew off. In top stub of 2° tree.

Checking nest again at 1900 (1800), The egg is gone! Somebody is still interested in the nest, anyway I'll have to watch here tomorrow during the prime egg-laying hours

15 May Checked nest at 0700 (0600) empty. Watching nest!

0820, No interest in nest whatsoever. Going to watch group. Not much going on, over by Griffins in locusts twice, up by the cabin, but nothing suspicious.

1100. Great! The nest stub is now on the ground! It must have fallen between 0900 + 1100 this morning. It was moderately breezy this morning, and the wood was very soft, wet, and rotten. Roosting, 1 bird in the canyon hole. Sandy, watching here, heard two head that direction, one more toward Madrone Canyon

Melanerpes formicivorus

Plaque — Hastings Reservation

16 May Watching from Adobe 0830. 0900, more ♀ dominance in 2° Valley Oak, ♀496 on top stub, ♀494 on "copulatorium" branch.

D ** ♂473 in tree nearby. ♀496 flies to join ♀494, and ♀494 pecks at ♀496 sharply several times. Pecks directed at body, base of tail, and head. ♀496 did not really try to escape.

1500, watching from cabin. 2 birds take a look at last year's nest hole, which Walter cleaned out yesterday. I also saw one fly ~~binary~~ to the office Valley Oak where the 1st nest was. I also saw a good copulation in the 2° tree.

C ** I believe (but wasn't sure) it was between ♂473 and ♀494. Good tail twist, cloacal contact, 4-5 sec duration. The ♀ could have been ♀496, but I saw the copulation ♀ fly to the spot where a few minutes later I picked up ♀494.

Roosting, I saw just 2 birds in the 2° tree, with a fine display of pre-roost mounting, plus one good-looking copulation.

17 May Watching 0830 from Adobe. 2 birds (♂473 + ♀494?) flycatching on watertank hill. Somebody took another quick look at last year's nest hole.

Again from Cabin, 1820. For the last 20 min, ♂521 here alone. Now ♀496 nearby. Where are the others? 1822, they fly in from watertank hill area. Flycatching perhaps?

18 May Start watch 0730. Hooray, a bird (I believe ♀494) FINALLY goes into last years refurbished nest hole! Maybe

P ** they'll do it yet. Just before, a very modest dominance int. between ♀♀, alone on top stub of 2° tree. One quick peck,

17 May 0830

0830 ♂4 ♀4 | ♀6

0835 ♂5 | others

0840 ♂ | ♂ |

0845 ?

0850 ?

	alone	with ♂	with ♀
♂473	follows		
♀494			
♀496			

Melanerpes formicivorus

Plaque — Hastings Reservation

(18 May) Looking almost like they were billing 0818, more dominance
** ♂473 + ♀494 together in VO along Coopers Hawk canyon, ♀496 on top of 2° tree, ~~she~~ ♀494 flew to ♀496, wakes then pecking, 2 more good follows of ♀494 by ♂473

0850, more good hole action! A ♂ in for a long time, both ♀♀ come to nest, look in. It looks good! 0855, ♀496 in briefly. Very good indeed! Walter's refurbishing job may have done the trick. Going to check the hole. Ooops, ♂521 at hole briefly! Everybody knows where it is!

0930, checked hole, no eggs, but lots of wet sawdust. I'll go up and replace it with dry stuff soon.

1600, I do, and move blind over. ♀496 enters hole and stays in for a good bit. Looks good!

19 May Start 1430 ♂473 + ♀ (294?) in top of Plaque tree. Earlier I saw a lot of in + out action at the nest hole. Coopers Hawk whizzes past at 1435. Earlier, while watching from the cabin, I saw a nifty copulation.

0 ** Things pretty dull now! 1520, more dominance between ♀♀. Both together on lower limb of nest tree, ♂♂ nearby, ♀494 jabs at head of ♀496, and the latter chatters. ♂521 had taken a couple of quick looks at the nest hole.

20 May Start from Adobe 1030. Walter had a poor AM here watching the nest (Birds freaked by a person in the hide?) However, a bird looking out when I get here. Quickmount (cop?), not seen well,
** in top of Plaque tree, ♂473, ♀496. ♂473 then flies to take a look at nest hole. ♀494, however, continues to work on the top stub hole at the 2° tree. Both ♀♀ in briefly, ♂473 looks in.

19 May

1430	♀294	♂473	
1435	"		NI
1440	"		"

Melanerpes formicivorus

Plaque

(20 May) While transcribing notes at cabin at 1230-1400, lots of action at the nest hole, birds visiting all the time. Perhaps we ought to move the blind. I'll go check the hole one more time 1515, I check the nest, no eggs, but laying seems certain, and soon! Nicer dry inside, looks good!

21 May I relieve Walter at nest watch at 0915.
0942 ♀494 enters 0943, ♂473 also 0945, ♂521 looking in! 0948, both leave. 0950, ♂473 enters briefly, exits with lots of sawdust, looks like a fecal sac. ♀496 looks in nervously several times. 0954 ♀494 enters again. 0955 ♀496 enters! then ♂473 (?), the big three in the hole together. All leave at 1001.

Going up to the hole, once again, no-eggs. It's gotta be soon, though.

1515, after moving hide closer and into better position, watching nest again. at 1530 ♀494, ♀496, and ♂473 all in hole at same time! tapping, pecking from inside hole. Still refurbishing? 1545, everyone leaves, the ♀496 back in at 1546, more tapping. When she left the first time, her bill was covered with sawdust! 1550, ♂473 + ♀494 return and enter again. I'm convinced hide is OK here.

22 May Start watch 0640 (0540). Checked nest at 0620, still no eggs! 0739, ♀496 enters nest hole 0745, head out briefly. Out again at 0746, down 0747. 752.30, she leaves! 0810, check nest, still nothing! A mighty suspicious visit by ♀496, though.

Melanerpes formicivorus

Plaque

(22 May) Continuing watching nest hole at 0820. 0901, All ♀496, ♂473 ♀494 enter hole, in that order, all down. Leave (♂, ♀494, ♀496). Ending watch 0905.

23 May Rust egg! Quite a day here at Plaque, as we detect egg-tossing once again!! Unfortunately, the exact situation was somewhat muddled, but the results were clear: ♀494 Red-white/Red tossed two eggs out of the nest! Here are the details.

21.1 × 16.6

Start 0615 (0515). Nest empty!

0701 ♀496 enters, garricks from inside twice at 0704 0707, ♀494 at hole, looks in, doesn't enter. 0725, ♀494 and ♂473 enter nest! 0728, ♂473 leaves 0730.45, ♀♀ leave, ♀496 first. Going to check hole

0745. Hole checked -- still nothing

0815.30 ♀496 enters. 0817 ♀494 enters. 0821 ♀494 leaves, ♀496 heads out. Back down 0821.45. 0823 ♀496 leaves, reenters immediately!

0824 ♀494 enters, ♂473 follows at 0824.45 All 3 inside nest! 0826, ♀494, ♂473 leave (a follow!). 0830, ♀494 enters again, ♂473 follows her in again (another follow). 0835, everyone leaves ♂473, ♀494, ♀496.

2 eggs laid (?)

→ 0840, ♀494 Red-white/Red at nest, enters only momentarily, as I leave blind trying to scare her off. (I wanted to check the nest, and didn't want her to get in) Nonetheless, she sneaks in for about 5 sec, and I, walking toward the hole, see her leave

Melanerpes formicivorus

Plaque

(23 May) carrying a full sized egg in her bill!! Egg-tossing! I only wish I knew what had been going on!

I check the nest, and find one egg, a runt (Walter later measures, 21.1 x 16.6). It was cold to the touch. I marked it #1

Later, Sandy sees ♀494 exit carrying an egg (marked #1) in her bill!! I check the nest, and it is now empty. See her notes for details. Anyway, 2 eggs laid today, both tossed out by ♀494. One of the eggs was a runt, the other apparently normal.

Because of both ♀♀ being in the hole at the same time, there is much more confusion than I would have liked. But here is the poop!

① ♀496 was in the hole by herself at intervals between 0815.30 and 0835. ♀494 was never in the nest alone, except for the 5 seconds on the trip at 0840 when she tossed the egg. Although she may have laid the egg and pulled out the other one at the same time, (as I originally suspected), I now kind of doubt it. The time was very brief, and the runt egg was cold to the touch when I got to the nest a few min. later

② The logical conclusion is that each ♀ laid an egg each, and that for some strange reason, ♀494 tossed hers as well as ♀496's out. That one of the eggs was a runt adds a good deal of confusion. It is possible even that ♀496 laid both this morning!

Melanerpes formicivorus

Plaque

(23 May) A runt may be merely an accident, and it may be possible for a ♀ to lay a good egg and a runt at the same time. ~~However~~ We'll have to check the literature. However, it may be that ♀494 laid the runt, and "didn't like the looks" of it, and tossed it out as well. It is also possible that ♀494 laid + tossed out her own good egg, but that is hard to figger. We'll have to see what happens tomorrow. Nonetheless, I'm fairly sure that ♀496 laid at least one of the eggs, since she was alone in the hole for at least a few short periods. We'll see what happens tomorrow!

Watching group at 1355. ♂473, 2♀♀ in top of

① Dom → nest tree, ♀494 pecks at ~~head~~ feet + body of ♀496.

② Again, moments later, 1530, more dominance.

at top of nest tree, ♀494 pecks briefly at ♀496

③ ♂473 not nearby this time. could have been acorn-related

④ Repeated moments later, ♂473 10m away in nest

⑤ tree. Another 5 min later (back)

Got association data. 3 birds in hole around 430, checked it, found nothing.

At ~~[illegible]~~, 1715, 3 birds in hole again. See back.

1830 - 1930, watch hole, nothing. Nothing at roosting, either

24 May Both ♀♀ lay today, essentially simultaneously! Here is the poop, with pairing data on reverse of P. 24

0635 (0535) Start watch at nest. 0657, ♀494, ♂473 come to nest briefly 0703, Walter relieves me.

23 May 1980 Plague

	♀494 followed	♀494 not followed	♀496 followed	♀496 not followed
♂473	IIII	~~IIII~~		I
♂521	I			
Both				

I independent
NI Not independent
NT Nest tree
PT Plague tree

1355 ♂473 2♀♀ NT |
1400 all 4 NT |
205 all 4 PT |
220 ♂473, ♀494, ♂521 NT |
225 " | NI
230 " | I(?)
235 " | NI
240 ♀294 ♂521 NT | ♂473 ♀496 PT
245 " " NI
310 ♀♀, ♂473 NT |
315 all 4, ♂521 somewhat removed NT |
320 ♀♀ ♂473 | NT
325 ♀294 ♂473 NT | ♀496 cabin Blue Oak
330 all but ♂521 NT)
335 " NT | NI
340 all 4 | NT
345 ♀494 ♂473 u. Barn | ♀496 ♂521 nest tree |
350 ♀494 ♂473 NT |
355 ♀♀, ♂473 NT |
400 " in hole, ♂521 in tree |
405 ♀♀ ♂473 " | ♂521 PT |
410 " " NI
415 " , ♂521 in tree |
420 ♀♀, ♂473 in hole, ♂521 nearby, NI
425 " NI

NEST CHECK

515 - 540 ♂473, 2♀♀ in hole, ♂521 in tree nearby
all not independent

Melanerpes formicivorus

Plaque

(24 May) 2 eggs laid about 0820. See Walters notes. Both ♀♀ in nest.

*♂D 0830 ♂473, ♂521, ♀494 top of nest tree. ♂473 moves slightly toward ♂521, ♂521 chatters! ♂521 chatters again a few moments later! Then 2 more chatters. ♀496 was also nearby, just below where others perched.

1047, 2 ♂♂ alone on top stub of nest tree, ♂521 chatters to ♂473! This occurred just as ♀494 arrived!

*♀D 1052 ♀494 alone on top stub, ♀496 flies in from Adobe Hill area, both waka, then ♀494 pecks at ♀496

*♀D 1119, very vicious dom. interaction between ♀♀. ♀494 alone on top stub. ♂473, ♀496 fly to stub, ♀494 lays several sharp pecks on ♀496, directed at head and face.

1128, ♂521 shows slight aggression toward ♀496, top of nest tree, he moves at her aggressively, she gives way.

Watching nest again 1215

1228.30 ♀496, ♀494, ♂473 all enter. ♀♀ arrived simultaneously,

*♀D ♀494 pecks sharply at ♀496 before they go in. Much tapping, 1235.00 Much noise, all leave

1300 ♀494 enters, ♂473 follows, then ♀496. 1303, tapping inside hole 1308 ♀494 ♂473 leave. ♀496 head out 1310 down. 1311 out 1312.30 she leaves, people walking by

1330 Sandy relieves me

Watching group 1915 nothing happens. Nothing at roosting, either.

25 May ♀494 lays alone today. Details on P. 25

24 May 1980 Plague

	♀494 followed	/ not followed	♀496 f	/ Nf	both
by ♂473	~~IIII~~	III		II	I
♂521		II		I	
both ♂♂					

0840 ♂473, ♀494, ♀496 (top of nest tree)
♂521 below (all 4)

0845 same situation NI

915 core 3 NT |

920 rain " NI

1030 ♂473 ♀494 NT |

1040 ♂473 ♀494 ♂521 NT |

1045 ♂473 ♀494 cabin | ♂521 NT

1055 ♀494 NT |

1100 " NI

1105 all 4

1110 ?

1120 core 3 NT | (♀♀, ♂473)

1125 ♀♀ NT | ♂521

1130 core 3 NT |

1135 core 3 nest ♂521 NT |

1145 ♀494 ♂473 nest | ♀496 nest tree |

1150 ♀494 ♂473 nest | NI

1155 " NI, ♀496 NT |

Melanerpes formicivorus

Plaque

(25 May) 0707 ♀494, picking up stones (?) in dirt in front of lab area.

0930 Relieving Walter at nestwatch

1020 Check nest, 3 eggs. ♀496 has not laid today, See Walters notes

1045. Bagging it.

1915, checked nest again, still 3 eggs

26 May Both ♀♀ lay again today, although ♀496 lays late. See Walter's notes, also.

0830, ♀496 on dirt pile over septic tank by cabin, getting grit (?)

♀494 lays around 0825. I take over watching hole for walter

egg #5 laid by ♀496

1015.00 ♀496 enters nest. 1015.45 head out 1016.00 back down. 1021 ♂473 looks in, flies off at 1023. 1036.45 ♂521 looks in, enters briefly at 1038.00.

1041.00 ♀494 enters (both ♀♀ in). Lots of heads in + out at 1047. 1049. ♂473 at hole, ♀494 leaves, ♂473 enters. 1052 ♂473 out. 1109, ♂473 leaves, ♀496 out. 1111 ♀496 down 1120, we flush ♀496 out of nest. Laurie Drinkwater and I check the nest. A fresh egg, #5, 4.68 g, 25.7 x 18.1 mm.

Association data on reverse. Following of ♀494 shown by ♂473 starting to break down.

Turn page.

25 May 1980 Plague

	♀494 followed	♀494 not followed	♀496 followed	♀496 not followed
by ♂473	11 ~~IIII~~			1
by ♂521			1	
by both ♂♂				

0600 all 4 NT |
0605 ♂473 ♀494 PT | ♂521 ♀496 lab tree |
0610 " " NI
0615 ♂473 ♀494 WT Hill | ♂521 PT | ♀496 Sycamore area
0620 ♂521 PT
0630 all 4 PT |
0635 " NI
nest check
0725 all 4 PT |
0730 ♂521 ♀496 PT |
0740 ♂473 ♀494 nest | ♀496 nest tree | ♂521 PT
0750 ♂473 PT | ♀494 NT
0755 ♂473 ♀494 NT |
0835 ♀♀ PT |
0845 ♂473 ♀494 Adobe | ♀496 ♂521 PT
0850 ♂521 NT | ♀496 PT | ♂473 ♀494 Adobe |
0855 ♂521 NT
0905 ♀494 NT |
0910 ♀494 ♂473 nest tree |
0915 ♀494 ♂473 Adobe |

---

26 May 1980

	♀494 F	♀494 NF	♀496 F	♀496 NF
♂473	~~IIII~~	11	11	11
♂521		11		11
both				

705 ♂521 PT
720 ♀496 NT
725 ♀496 NT | ♀494 in hole | ♂521 PT
755 ♀494 ♀496 NT | ♂473 PT |
800 ♀♀ ♂473 cabin | ♂521 NT |
810 ♂473 ♀494 |
815 ♂473 ♀494 NT | NI
820 ♀494 N, ♂♂ NT |
825 all 4 NT, ♀494 in nest |
830 ♀494 nest |
835 ♀496 cabin | ♀494 nest ♂473 NT |
840 ♀494 (n) ♂473 NT | ♀496 PT
845 ♀494 (n) ♂473 ♀496 NT |
850 " NI
855 " NT

900 " NI
905 " NT
995 ♀494 NT
1000 all 4 NT |
1005 ♀♀ ♂521 NT | ♂473 PT
1010 ♀♀ ♂473 Adobe | ♂521 NT

1515 ♂521 PT |
1530 ♀494 N | ♂473 NT |
1535 ♀494 N ♂473 ♀496 NT |
1540 ♀♀ ♂473 ♀ nest |
1545 ♂473 ♀496 nest | ♂521 PT |
1550 " "
1555 "
1600 "

Melanerpes formicivorus

Plaque

27 May Egg #6 laid today, late, by I think ♀494 (more confusion). Lots of early hole action, but no egg laid. See Walters notes. "Pairing" (or association data on reverse).

· Nest checked at 1000, I take over for Walter at 1020:

1033.00 ♀494 enters

#6 laid (?) by ♀494 (?) — 1044.20 ♀496 enters. 1051.10, ♂473 at hole, ♀496 leaves, ♂473 enters at 1052. 1052.20, ♀494 leaves. 1056.10, ♀496 enters momentarily, then leaves. 1057 ♀494 enters nest. 1105 ♂473 out 1115.20 both ♀496 + ♂521 come to nest. ♀496

* ♀ Dom chatters as ♀494 leaves. ♂473 leaves, ♀496 enters, ♂521 flies off. 1120. ♂521 enters ♀496 out. 1121 ♀496 down. 1132 ♀494 enters nest, incredible chattering and commotion from within 1139. ♀494 leaves, ♂521, ♀496 then leave.

Checking nest. Egg #6 5.20 g 25.9 x 19.1 mm. My suspicion is that ♀494 laid this egg, as she looked very much "with egg" when I watched her earlier. Also, she was in the nest during 1033-1044, alone. Although egg measurements somewhat intermediate, tends to support ♀494 as mother.

28 May I watch the nest late morning today, and another egg sneaks in on us, this one laid almost certainly by ♀496. Egg #7, meaning probable skew 4 (♀494) to 3 (♀496)

~~Start wes~~ Checked nest at 0800, still 6 eggs

Start watch at 0823 (0723), as 0.00 on stopwatch.

27 May 1980

	♀494		♀496	
	foll.	Not foll.	foll.	Not foll.
by ♂473		‖		
by ♂521				
by both ♂♂				

0830 ♀494 NT |
0835 ♀494 ♂521 NT |
0845 ♀494 ♂473 PT | ♂521 sycamores
0850 ♀494 NT | ♂473 nest
0855 ♀494 NT ♂473 nest | ♀496 PT
0900 " NI
0910 ♂473 ♀496 nest hole | ♀494 ~~AT~~, | ♂521 PT
0915 " NI
0920 " NI
0925 ♀496 ♂473 nest | ♀494 adobe | ♂521 PT
0940 ♀496 ♀494 nest, ♂473 NT |
0945 ♂473 adobe | ♀494 NT | ♀496 nest
1000 nest check

Melanerpes formicivorus

Plaque

(28 May) 1.00 ♂473 enters. 29.10 ♂473 leaves

30.40 ♀494 enters 31.40, ♀496 enters, ♀494 leaves

38.30 ♂473 enters, ♀496 heads out. 39.00 down. Tapping from inside hole. 41.00 ♀496 head out, 41.30 back down

45.40 ♀496 out 47.20 ♀496 leaves, ♂473 leaves.

48.00 ♀496 enters, 59.50 ♀494 enters, ♀496 leaves

9.20 ♂473 enters, ♀494 leaves. 15.50 ♂473 head out

18.00 ♂473 leaves (John nearby). checked nest, still 6 eggs.

Back in hide at 0954 (31.00).

#7 laid by ♀496 (?)

34.30 (0957.30) ♀496 enters. 58.10 ♂473 enters. 3.00 ♀494 enters, much chattering and commotion from inside. 4.00 ♂473 leaves. 8.00 ♀494 leaves. 18.20. ♀494 enters. 18.40 ♀496 out 19.00 back down. 30.50. ♀494 leaves. 50.00 end watch to check nest, ♀496 still inside

1130 (1030) I check the nest, one more egg, marked #7 and returned to the nest (4.85 g, 25.9 x 18.6), laid most likely by ♀496. Back in hide at 1140.

1150.40 ♀494 enters. 1152.00 ♂473 looks in very nervously. Both leave 1155. 1156.30 ♂473 enters 1204.30 ♀496 enters. 1210. Lunch break.

Check nest at 1240, still 7 eggs

29 May Checked nest at 0830 with Walter. 7 eggs.

Start nest watch at 0940 Nest empty (?) NO!

0959.30 ♂473 looks out, leaves nest.

Melanerpes formicivorus

Plaque

(29 May) 1001.20 ♀494 enters nest. 1014.20 ♀496 enters, ♀494 leaves.
1022 ♂473 replaces ♀496.
1030, walter returns ladder. ♂473 flushes out.
Checking nest, still 7 eggs. Back in hide at 1040.
1048.20 ♀494 enters nest. 1050.50, ♀496 enters, ♀494 leaves
1054.00 ♂473 enters. End 1100. Will check nest later.

1 June Check ~~[illegible]~~ nest in afternoon, 7 eggs.

3 June Start watch 1150. Will try to get post-laying data.
1240. Too hard. can't see nathin!

4 June Checked the nest at 1445, still 7 eggs, none hatched or hatching yet.

8 June Checked the nest, weighed + ½ measured the nestlings
Egg #6 apparently hatched today, #7 pipping

9 June Checked the nest again at 1430, 6 nestlings weighed and remarked

10 June Weighed + measured nestlings. #7 has disappeared from the nest, #6 looks like it's on the way out

11 June Weighed + remarked 5 nestlings.

12 June Weighed + measured + banded babies

14 June weighed + measured babies The runt (#6) is definitely on the way out. Lost a full gram from 2 days ago

24 June Roosting, ♂476 roosted in the nest.

25 June A massive flycatching outside the cabin from about 0720 to 0800. Seemed to be catching slow-flying, alate ants, emerging about that time. Many non-specific flycatching bouts.

12 July Watching at 0730, and I'm a little concerned about the

3 June 1980 Plaque

1155 ?

1200 ♂473n ♀496nt

"

1205

1210

1215

1220

1225

1230

Melanerpes formicivorus

Plague

(12 July) juveniles here. Yesterday afternoon I noted from the rasin that nobody was visiting the nest anymore. Four of the juvs probably fledged then on 10-11 July (birds were still feeding at nest at 2000 10 July). However, this does not bode well for the runt, who seemed too poorly developed to fledge. However, on my 9 July Nest watch, he was looking out of the hole and being fed. Thus far this Am I've seen only 1 juv (couldn't see bands). Also checked area of Cooper's Hawk nest, negative for remains of AW.

0925, J606 BPnk-wht/m seen at least

1000 -- A major disaster. I go up to the hole and find 4 dead juveniles, J605, 607, 608, 609. Very bizarre. Covered with ants, beginning to rot. Why did they die? Certainly they were being fed with enthusiasm on 9 July, and, as I watched from the cabin, on 10 July. No feedings seen yesterday. Weights of the dead birds seemed pretty good, despite their decomposed state. Gizzard of one was empty (except for rocks), but that doesn't imply starvation, really. Could the ants (I collected many) have killed them? Could runt J609 died first (he seemed to have died before the others) and attracted ants or other diseases? Certainly he couldn't have died until 10 July, because he was healthy, looking out and being fed, on 9 July. Disease? We sexed the nestlings and found nothing suspicious inside. It real mystery. However, they were not predated.

1980 R.L. Mumme

Melanerpes formicivorus

Plaque -- BEHAVIOR SUMMARY

copulations -- ♂473-♀496

1 -- 9 April
3 -- 10 April
1 -- 11 April (1 in S. Nishimuras notes as well)
1 -- 4 May (perhaps 2)
1 -- 5 May

[7]

♂473 ♀494

1 -- (?) 16 May

[1]

eggs laid 10 May (false start
23 May

dominance ♂473 → ♂521

1 - 14 April (?)
1 - 15 April
1 -- 13 May
2 -- 24 May (♂521 chatters)

[5]

♀494 → ♀496

2 -- 17 April (chases)
1 -- 8 May
1 -- 10 May (see N Juste for another)
2 -- 11 May
1 -- 14 May
1 -- 16 May
2 -- 18 May
1 -- 19 May
5 -- 23 May
2 -- 24 May

[18]

♀496 chasing ♀494
1 (?) dubious!

1980 R.L. Mumme

Melanerpes Formicivorus

Plaque Nest Record

	608 LBlue-Red #1 Mauve DBlue	606 BPnk-Wht Pink-W (N)	607 LPnk-DBlue 2-4 LG-Or	605 DBlue-Wht (N) Yell-LBlue	610 / 14 Retrig wing / tarsus DGrn-BPnk (N) 6 or 7	7
	L Heel	R Heel	L Foot	R Foot	L wing	R wing
1430 (1330) 8 June	7.3g / 5.8 / 10.4	8.0g / 5.4 / 10.1	6.0g / 6.2 / 9.5	6.7g / 5.3 / 10.1	3.8g / hatched today	Pipped
1430 (1330) 9 June	10.1 g	11.0 g	9.6g	10.5 g	6.5g	3.4g
1530 (1430) 10 June	13.5g / 8.3 / 10.4 / 14.5	16.0g / 8.8 / 10.4 / 14.6	13.9g / 7.8 / 9.9 / 14.3	13.5g / 6.9 / 9.3 / 14.3	7.0g	† gone
1430 (1330) 11 June	16.6g	19.0g	16.0g	16.7g	8.5g	
1530 (1430) 12 June	18.3 / 9.7 / 11.6 / 14.9	23.0 / 10.2 / 12.3 / 17.4	20.6 / 9.5 / 10.9 / 16.8	20.6 / 8.5 / 10.4 / 17.2	9.4g	
1330 (1230) 14 June	24.2 / 11.2 / 12.7 / 18.9	30.0 / 12.0 / 13.9 / 20.1	23.7 / 11.2 / 13.5 / 19.2	28.0 / 10.4 / 13.5 / 20.2	8.4g	
1600 (1500) 16 June	34.0g / 13.0 / 16.6 / 20.4	38.8g / 13.8 / 16.6 / 20.7	33.8g / 12.9 / 16.2 / 20.6	39.8g / 12.2 / 16.8 / 20.6	14.4g / 10.2	10.3 / 15.2
1515 (1415) 18 June	43.0 / 14.5 / 19.8 / 22.0	46.4 / 15.1 / 20.2 / 21.7	41.0 / 14.5 / 19.0 / 21.3	48.7 / 13.9 / 19.9 / 24.9	19.0 / 11.5	12.6 / 17.1

Eyes opening, feathers beginning to come through. will have to add feather measurements on 20 June

1400 (1300) 20 June	49.6	23.7	4	54.7	23.7	6	49.0	21.7	4	54.2	23.9	4	23.6	14.3			
	16.0	23.2	3	16.2	22.9	3	15.6	22.6	2	15.7	23.0	3	12.9	18.5			
1430 (1330) 22 June	57.9	26.7	10	62.2	28.9	12	55.2	25.3	10	67.1	29.6	9	27.3	17.3	0		
	16.8	24.2	6	17.8	23.4	7	16.5	24.7	5	16.8	23.4	7	14.2	19.0	0		
1500 (1400) 24 June	64.0	31.3	15	66.5	32.8	21	62.2	30.1	16	70.8	32.3	17	29.2	17.7	2		
	17.8	24.4	39 12	18.5	23.5	45 13	17.8	24.3	40 10	18.0	24.3	42 15	15.6	20.0	2		
0850 (0730) 26 June	64.0	33.1	47 24	68.8	35.3	29	63.5	34.9	24	73.4	35.0	26	34.0	20.6	4		
	18.3	24.2	17	19.5	24.1	56 20	18.2	25.5	48 15	18.7	24.6	52 20	16.7	20.3	5		
1630 (1530) 28 June	70.2	37.5	36	75.8	37.7	42	71.5	35.4	37	82.7	33.9	39	45.7	26.7	9		
	19.6	23.4	64 26	20.3	23.9	69 27	19.3	25.2	63 23	19.7	24.7	65 29	18.1	21.5	8	30	
1330 (1230) 30 June	74.0	37.0	47	74.0	37.9	79 52	74.0	37.5	47	82.0	38.0	50	52.0	30.7	16		
	20.5	23.5	74 34	20.8	23.5	35	20.0	25.9	73 30	20.7	25.2	76 36	18.6	23.0	14	40	

Only one that has ♀496's mother!

Walters measures

7 June	hatched 5.7 g	opaque 6.7 g	pipping 4.6 g	pipping 4.3 g	opaque	opaque
dead 1 day	74.8 g 94		73.3 95	78.5 g 96	61.0 g 68	
12 July	23.7 23.2 123 71	Fledged	25.8 23.5 118 63	25.5 23.4 119 75	22.4 23.3 90 44	
	♀ (?)		♀ (?)	♂ by autopsy	♂ by autopsy	

Melanerpes formicivorus

Plaque

21 Sept Been putting off note-writing here for quite awhile. Watching here very casually I find that J606 is in solid ♀ plumage! good for it. I also see ♀496 and another ♀, (almost certainly ♀494). I've shamefully not written it up, but Coopers Hawks have been incredibly common around Plaque all summer, no doubt the juveniles (who were begging earlier, in Aug) and the adults from Watertank Hill are involved. Miraculously, they haven't nailed the Plaque woodpeckers yet.

11 Nov Watching here briefly at 1020, complete census, as everybody (or nearly everybody) chasing a crow out the live oaks by the bunkhouse. Only ♀♀ 494 + 606 ad ♂521 seemed to be heavily involved. Anyway ♀606 BPnk-wht/wht-BPnk, ♀496 Mauve/Lgrn ... ♀494 white-Red/m, ♂521 Blk-Yellow/Or, ♂473 Lgreen/wht all seen.

21 Dec Quick watch here at 1000, everybody seen, ♂473 Lgrn/m "/wht, ♂521 Blk-Yellow/Or "/m, ♀496 Mauve/Lgreen "/", ♀494 Red-wht/Red, and ♀606 BPnk-wht/m BPnk-wht/white-BPnk

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Melanerpes formicivorus

Y Hastings Reservation

14 April Walking by at 0820, a ♀ karrit ing from the sycamores, then the Davis' Pines. Couldn't determine if it was one of the School Hill sisters, who have been frequenting the Y.

18 April Surprise, ♂402 Yellow/DPink here at 1215, poking around in the locusts. He must not have plans on "breeding" at School Hill!

24 April Lots of garricking here around 0730.

30 April Plaque birds (♂521 for sure) here at 1400.

4 July ♂, 2 ♀♀ here, including ♀523 DBlue/wht-DBlue. Presum others are Still birds also, as Sandy et al have seen them here frequently

5 July ♂402 Yel/DPink DGreen-BPink/w from Still here at 0800.

13 Sept ♀524 from Still, plus at least one + perhaps 2 other birds here at 0915. One a juvenile (?).

1000, 2 Juvs, 602 + 604 Yellow/DPink also here. See S Hill notes

1130, ♂402 also here metal/Red-DBlue, as well as ♀523 DBlue/white-DBlue.

9 Nov 1330, ♂402 Yellow/DPink "/" here in the locusts by the Lower Barn, a ♀ also here. 1400, manage to see, in addition to 402, all 4 young ♀♀ here: ♀523 metal/DBlue/wht-DBlue, ♀524 DGreenBPink/wh, ♀602 Blk/Wht Blk-wht/m, ♀604 Red-wht/Black. Why aren't they home storing acorns? Mostly flycatching action here. No acorns in the locust granary.

1 Dec 0130. Once again, the entire School Hill "Youth contingent" (♂402, ♀♀523, 524, 602, 604) all here in the Lower Barn Locust trees. Possible that they are storing acorns, gathered from Live Oaks along Big Creek.

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Y

18 Dec Once again, School Hill birds here. At least 3 at 1330
but all I see are ♀602 Blk-wnt and ♀604 Red-wnt/Blk.
This time I see them around the pump + Blom scroll

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Hastings Reservation 1500

25 Jan Start watch 1345. 1415, ♂493 LBlue/metal LBlue/LBlue chases ground squirrel from granary. ♂297 (DBlue, L) and ♀435 yel-Blk/yel-wht also around. Also ♂492 Or/Blk M/Blk 1505, all 3 ♂♂ harrit-mob a ground squirrel in the granary. Birds moving acorns around a lot, and it looks like they may be harvesting the last of the live oak acorns from trees along Big Creek. The bad news is, where is ♂298? Seems like I should have seen him. 1545 end. Copulating kestrels here.

30 March Swinging by here 1015, ♀435 chasing NB ♀ intruder

→ (a data point!) ♂297 also here. Coopers Hawk calling from Haystack area. ♂297 chases nuthatch from granary.

→ Another data point! 1040, ♂297 chases Downy Woodpecker from granary! End 1045. 1110, from 1800, I saw ♂297 chase Downy's from granary twice more. Yet two more data points!

21 April A check of the holes here produces nothing.

25 June 0930 New nest on side of School Hill 4 babies, one small egg. 988 cm high (9.88 meters) angle −20°

30 June Roosting, ♂297 alone!

3 July Roosting, the birds lipped in quickly, but I think it was ♂297

23 Aug Start watch 1520. Coopers Hawk (imm ♂?) shows up briefly. These guys are out of acorns, so they may be tough to track down. 1600 End

24 Aug Start again 0815. 0913. Zero! Maybe later.

31 Aug Arrive 0930, Birds! In fact, I see a bird I read

Melanerpes formicivorus

1500

(31 Aug) as LBlue/LBlue, meaning ♂493 is hanging around! 2 other adults as well, but couldn't see bands. hanging around the woods above the granary, 1045, must be homecoming. Definitely ♂493 LBlue/M LBlue/LBlue ♂297 Black/Or-Black (DBlue LWS) ♀435 Metal/Yellow-White Yellow-Blk/ " , J622 , J623 Red/Yellow, plus a bird (adult ♂?) that may have been ♂492 Orange-Black. Not positive. Also an extremely tenuous suggestion that J622 >> J623. Former was being fed by ♀435 (sap or insects excavated from Blue Oak (!): will check) for a long period of time, and though J623 was near, he never came over to try to get in on the action.

Birds harvesting acorns in woods above granary (Live Oaks? or some Blues), and also along creek or Road. 1145, Yesiree, no doubt! ♂492 Orange/Black Metal/Black is Back! How about that! End noon.

5 Sept Trying again 0945, looking for juv. dominance. Saw 5 birds flycatching here from the upper Blue Oak yesterday afternoon. ♂493 LBlue/Metal here. 0950, Big ♀ Cooper's Hawk flies into Blue Oak, ♂493 splits, harrassing. 1010, ♀435 Red/Yellow Yellow Black/Yellow White and J623 Red/Yellow all here. 1045 Bingo ♀435 Blk/Or-Bl flycatches, both juvs fly to her, J622 pecks hard at J623 Red Yellow several times to head, then ♀435 pecks at J622. Excellent! End 1045.

5 Dec Start watch 1200 Still a little storing activity here. Birds flying over to Black Oaks on S Hill, flights

1500 Juv. dominance

J622 >> J623 1 (5 sept)

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1500

(5 Dec) made in two trips. 26 sec. 28 sec total for two. Saw ♂493 store a nice BO acorn. 1245, ♀435 is conspicuously absent. Everyone else (♂297, ♂492, ♂493, ♂622, ♀623) seen repeatedly and well. Could she have been the bird walter found the remains of a few weeks ago? All the ♂♂ are really working stores, eating acorns, etc, but ♀623 almost entirely flycatching. Seems to be quite a few bugs around despite coolness. Rain perhaps initiated a bug emergence (termites, perhaps?)
End 1315, no sign of ♀435.

19 Dec Census, ♀435 is here (see 1800 notes, entered there by mistake. Juvenile dominance, too.

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1800 Hastings Reservation

25 Jan Start 1550. 2 birds in granary VO, one appears to be ♀ 193 DPink/metal. Second bird, can't tell. Incidentally, the supplemental granary tree between 1500 + 1800 seems to be the undisputed property of 1500 birds. 1600 Three birds ♀193, ♂347 LPink-DBlue/LPink, Finally, ♂476 Black/LGreen. Everybody here.

30 Mar Start watch 1100. Three birds here and it looks like the complete group. ♂347 LPink-DBlue/LPink and ♂476 Black/LGreen plus a ♀ which I haven't gotten a good look at yet. 1215 all 3 → birds dive on a ground squirrel. 1230, confirm ♀193 DPink/metal. These guys may have a nest!! lots of in and out of the granary hole, ♀193 taking a particularly long bout. Certainly worth checking! No nest checked with Walt

6 April Passing by at 1430, 2 birds (at least) in granary as I arrive, a ♀ + ♂347 metal/LPink-DBlue

21 April A bird in the granary hole (last year's nest) on a rainy, nasty day. I don't know if that reflects a nest or the apalling weather.

29 April Start watch 1345. ♂347 LPink-DBlue/LPink in the other granary, Once property of 1500! Back in granary he flycatches. (F). Also ♀193 DPink metal in granary. Now ♂476 Black/LGreen completes the group. He also (F) flycatches

1 May Roosting here. I couldn't see anything about the bands of the bird that roosted in the nest, suggesting ♂476.

13 June ~~Start~~ Cruise by here around noon. Ad ♀, and at least

Melanerpes formicivorus

1800

(13 June) 3 fledglings around, 2 of which were J561 Yellow/Black and J563 Yellow/L Blue.

16 June Start 0730. 0755, J562 wht-L Green/wht-L Green pecks J563 Yellow/L Blue / metal, another juvenile, but I couldn't tell who.

2½ ♂476 + ♀193 also here. 0905. Good dominance!

J Dom J565 white L Blue pecked by J564 metal/Red-Bk, who was in turn pecked by J562! Good start! Also completes census here. 0920, another 2 cases of J562 dominating somebody. He is definitely the stud here. End 1000

19 June Start watch 1645, flushing 4 birds out of granary as I arrive.

2 Dom! 2 more cases of J564 pecking at J565. A great case of J563 nailing J564, while being fed by ♂476! Good. 1750, about 4 cases of J562 nailing J564, 3 alone together, one with ♀ feeding. End 1845

20 June Starting again 1605. 1640, a Coopers hawk lands briefly in 1800 tree, ♂476 flies to live Oaks. Finally 1730, good

3 dominance, J563 Yellow/L Blue pecks J564 metal/, 2 adults present. 1812, J563 pecks J561! 561 also pecked 2 times previously by an unknown (suspect) J563 metal/DBlue-wht (N). 0825, a pretty sure J562 pecks J561! Not bad, end 1850

21 June Once more 1640. Coopers Hawk again, harrassed from

1½ 1800 tree by a diving ♂(?) ♀ kestrel. 1815 Boredom. ♀193, ♂476, J563, and thats all.

22 June Once again, 1615. 1700 J564 peck J565, ♀ present.

Sub

Dom	561	562	563	564	565	J?
561						
562	II(?)			~~IIII~~ I		III
563	I			IIII		I
564					~~IIII~~	
565						
J?	II					

?

561

? 562, 563 > 563 > 564 > 565

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1800

(22 June) 1720, J564 pecks J565, ad ♂ present. 1815, a possible
2 1/2 case of J562 nailing J561! Pretty sure, but it happened fast.

23 June Start 1125. J561, who had been at Low Hay an hour ago, now
1 1/2 here. Boring, end 1300.

25 June Start 1645. J563 peck J564 twice, adults near.
0630, J562 & J564. Also J564 pecked
2 a juvenile that may have been J561, although also quite possibly J565 End 1845.

30 June Start 0945. J564 dominated an unk. J as I arrived (the latter moved away). suspect J565. 1145: Dulkville. Bad,
2 but only J562 & J564 seen.

1 July at 0700, J563 (Yellow/LB line Metal / DBl-wht (N)) way over on Blomquist fenceline, flycatching from utility pole, 1/3 way up Hay stack. Strange, ♀478 (DBlue-Or/DBl-Or) also here!

Watching at granary 1645, 1800, Finally some
2 1/2 action, J562 pecks J565, then J564, in granary, adults around. Some sapsucking action in the live oak just up the draw from the granary. Even a hummingbird in attendance. 1910, I thought that I may have seen
→ some evidence of J562 dominant to J563, as the latter looked somewhat subordinate in J562 presence. A critical relationship, but very iffy! J526 also approaching ♀193 feeding J563, did not look especially concerned.

4 July. Start 1630 J561 (Yellow-Black) lounging 1715, J561 extracts acorn, starts working it, then "bully" J562 (wht-LGreen/M) comes along, pecks him 2 times, then forces J561 to give up acorn

New updated table

dominant	J562	J563	J564	J561	J565	J ?
J562	–	* 1 (+1 "iss")	𝍸 𝍸	1 𝍸	𝍸	111
J563		–	𝍸 111	111	11	1
J564			–	* 1 (?)	𝍸 1	1
J561				–	* 1111	
J565					–	
J ?				11		

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1800

(4 July) J561's eye is very light, I first thought him an ad ♂.

2 1/2 * Finally 1800, J561 pecks J565 white, hard, 2 times. later, J563 gives J562 a quick peck. That fills in a few more holes. End 1900.

6 July Start 1440. 1530 J563 nails J564 3 times (hard) as being fed by ♂476. Before, J562 begging from ♂476, J562 flew to them, but did not press the approach (unfortunately).

1630 -- wow A veritable flurry of Juv. dominance.

3 J562 >>> J564 3 times

J562 pecks J565 4 times

J562 pecks J561 2 times

J561 pecks J565 2 times

J563 pecks J561 1 time

Good n, but no interactions I hadn't already seen. 1715, J564 > J565

→ 1730. Great, a good J562 dominates J563! J562 approached J563 (who had just pecked a J?), J563 withdrew head, swung beneath branch while J562 landed in the spot J563 had just occupied, then J562 made a quick but definite jab at J563. Success! Also, 2 cases of J563 >> J565, one via a peck, another via subordinate behavior by J565. That means the only cell I lack is J561 - J564. End watch 1750.

2 7 July One more time 1540. One more J563 > J564 at nest hole. And I think I finally have finished mac,

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1800

(7 July) J561 begging from adult, J564 flies to them, and a series of pecks, withdrawals, and hitches around the tree follow, and I believe it was J564 ⇒ J561. Foliage hid my view so I couldn't be completely certain. However, the behavior of the two Juvs seemed to suggest that was indeed the case. Why would J564 fly smack into J561 if the latter was dominant.
End 1745.

23 Aug Start 1600, J565 (White/LBlue) shows up, and in ♀ plumage! very good! These guys are OUT of acorns. 1604, imm ♂ A. cooperi flies over, alarm calls. Other molt news: J561 → ♂♂! J563 → ♀♀! ♀193 also here, all 3 sapsucking from live oak in the draw above the granary. 1725, complete census, and complete sexing of juvs. J562 → ♂♂, as does J564. Excellent! 3♂♂, 2♀♀. Dominant Juv ♂, Sus, ♀, but B bird a ♀. Interesting end 1730.

20 Sept Start 1445. ♀563 (Yellow/L Blue M/DBlue-wht (M)) + ♀193 DPink/M both arrive with acorns. Seem to be getting them off to the SE along Big Creek. 1600 Finally ♂561 shows up Yellow/Black. Nice adult ♂ plumage, very white eye. also eats green acorn. Very boring. Bagging it 1610.

9 Nov Start 1110. 1125, somebody jumps all over and pecks ♂562 (wht-LGreen/) while on the main granary limb. Hope it was an adult. 1145, an alarm call given in the distance, ♀193 immediately flies from top of granary tree to 1980 nest hole. 1150, Cooper's Hawk overhead. Complete census here.

even newer updated 1800 table

Through 7 July (27 hours observation time)
16 June - 7 July

	dom	♂ J562	♀ J563	sub ♂ J564	♂ J561	♀ J565
♂	J562	–	2	10	6	5
♀	J563	0	–	8	3	2
♂	J564	0	0	–	1	6
♂	J561	0	0	0	–	4
♀	J565	0	0	0	0	–

n = 47

9 Nov Granary attendance

1110 4 birds | ♂561, ♂347 et al
1115 5 birds | NI
1120 at least 3 birds | "
1125 " | ♂473, ♀565 "
1130 " | ♂473, others ? "
1135 " | "
1140 at least 3 | ♂562, ♀193, et al "
1145 2 birds | ♀193, ♂473 "
1150 " | " " "
1155 " | " " "
1200 " | " " "
1205 lots | "
1210 " | "
1215 lots | ♂473, ♀193, ♀565, ♀563 "
1220 " | ♂561, ♀193, ♂347 "
1225 lots | ♀♀193, 563, 565, ♂♂474, 562, 561, 564
1230 lots | "
1235 at least 3 | ♂♂473, 561
1240 at " " | ♂561 ♂564
1245 at least 3 | ♂562
1250 " | ♂564,
1255 at least 4 | ♂564 ♂347 ♂562
1300 " 3 | ♂561 ♂473 ♀193
1305 " 3 | ♂561 ♂473 ♀193
1310 2 | ♂561 ♀193

25 5 min samples

100% attendance

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1800

(9 Nov) everybody alive + well, no problem. Granary attendance data on back of p. 5. End 1310. Birds still storing acorns.

5 Dec Start 1330. Granary census data on back. ♀563 does not appear to be here! Everyone else seen very well on numerous occasions. Perhaps the wicker remains (Walt found recently were ♀563. Some storing still, looks like Live Oak acorns brought in from creek area, perhaps. End 1530

Intruder here at 1530, thought first was ♂493 from 1500, then wasn't sure. Looked like chased by ♀565.

Later, I thought Intruder was ♀ Metal/White L Blue / L Blue, or something like that.

19 Dec Start 1215. Surprise, surprise, after a long hour, ♀435 finally shows up, Metal Yellow-Blk/Yellow-White. Everyone else seen, as well. Also saw ♂492 M/Blk peck hard

dom. → at ♀623, as the ♀ seemed to be begging from ♂297.

5 Dec 1980 granary census

1330 ♂561
1335 ♀193 ♂?
1340 lots
1345 ♂476, ♂347
1350 ♀193, ♂476
1355 ♂561 ♀193 ♀565 ♂564 ♂347
1400 ♀565 ♂347 ♂562 + others?
1405 ♀193 ♂562 + 1-2 others
1410 ♂476 ♂561 ♂562 ♂347 ♀193
1415 ♂476 ♂347 + others
1420 ♀193 ♀565 ♂562 + others
1425 ♀565 ♀193 ♂562 ♂561 + 1 more ♂ (347
1430 " " " " "
1435 ♀565 ♀193 ♂561 ♂562 ♂564 ♂347
1440 ♂473 ♂564 ♂347 ♀193
1445 lots (♀193, ♀565 ♂347
1450 ♀193 ♂561 ♂347
1455 ♀193 ♂561 ♀565 ♂562
1500 ♂562, 1 other
1505 1 bird
1510 ♂562 + ♂476
1515 1 bird
1520 ♀565 ♂476
1525 ♀193
1530 lots

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~~Blom~~ Haystack Blomquist — Hastings Reservation

29 March — Start watch 0900. 1 bird in granary as I arrive. 0910, ♂173 or/M flycatches (F) from Valley Oak above granary. ♀484 Yel-LBlue/Black now here, hawking (F). She was greeted with wakas from ♂173. Coopers Hawk calling from wooded Area on Blomquist. End 0935.

6 April — A ♂ + a ♀ in passing here.

15 April — Sandy reports both here.

21 April — A bird looking out of the VO hole along the fence on a rainy nasty morning. Nest or just bad weather?

13 June — Start watch 0900. 0840, J575 LGrn/DGrn in granary ♂173 + ♀484 also here. At least 2 other babies, but no good looks at bands. J575 appeared to be sapsucking from the top branches of the granary Valley Oak (!), but I wasn't completely sure. End 0940.

18 June — Trying again here 0810. 0840, J574 Metal/Red-white LBlue-Blk/LBlue-Blk, here, plus one I believe was J576 (Not certain, however.) Both ♂173 and ♀484 here. Also, J575 DGreen-LGreen/Metal. Also a fleeting look at J573(?) Metal or white/, but I wasn't certain. No dominance, birds difficult to watch.

29 June — Once more 0735. J576 LBl-Blk/LBl-Blk, J573 Metal/LGreen here, also J575 LGreen-DGreen. 0900 Thank God, ✱ → a dominance interaction! J575 DGreen-LGrn/M Pecks J576 on utility pole. ♂173 had been there, flew off. ♀484 feeds J575. 0905, now I believe I saw J576 chase J574 R-w/DB-w. from the utility pole. Now all I have to see is how J573 fits in

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Hay-Blom

(29 June) Perhaps an interaction, J575 looked pretty subordinate next to J573, but I couldn't be sure. That would roughly complete the table (assuming linearity). Thus, so far its J574 < J576 < J575 < (J573)
iffy good! ?! very iffy
in L Green

4 July Cruise by the cattail pond at 1145, 3 Juvs here (573, 574 m/Red-white, and J576 LBl-Blk/LB-Blk. It looked to me that J576 looked away when J574 flew in. This does not square well with what I have seen previously. These guys may need more work. All my interactions (except J575 >> J576) have been pretty iffy.

5 July Start 0830. Everybody here seen. One very iffy interaction, J575 seemed sub to J574. Who knows, really, though. 1005, strange, 9 and 2 Juvs enter a hole below a broken stump that faces the granary (hole in the 2° hole tree). They wouldn't really be thinking about renesting, would they?

7 July Start 0735 with an iffy interaction, J574 looked subordinate to somebody, I think J575. Another iffy one, J573 seemed to "have his way" with J574. light jus
Pink-Blk/m
J587 wht-Blk/Bpals/Blue from Low Hay intruding here, chased by ♂173, J573. 0810, a good one, J573 a light peck at J576. 0830 a good J573 >> J576, takes acorn away from latter. 0900, J589 here too, from Low Hay, chased by somebody. 0930, J575 "relieves" J576 of an acorn, looked like a decent J575 >> J576.

I'll try to summarize. For sure J576 is subordinate

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Hay-Blom Hastings Reservation

(7 July) to J575 and J573, and perhaps to J574 as well. The alleged "chase" I saw between J576 + J574 may have been J576 chasing an intruder, perhaps J587 from Low Hay. In the realm of the "iffy" J573 >> both J574 + J575, making him topdog, and J575 >> over J574. That would mean:

J573 → J575 → J574 → J576

11 July 0745, Big flycatching frenzy centered around fenceline, below nest tree. 1800 Birds (Juv 565 Wht/Metal, at least) also here, chasing + intruding, W. Kingbird also chasing AW J561 Yellow-Blk/M also here. J573, J574, J575 all seen Moving toward granary 0800. 0930, lots of flycatching, but birds not coming to granary much.

13 July Trying again in the clearing fog, 1000. 1020, a suggestion that the "other" dark-faced juvenile is sub. to J573. The J.? flew next to J573 in granary, J.? chattered + turned head. 1130, that means it was J576 acting subordinate. He is the other dark faced juv. 1145, complete census, but not much action. End 1215.

Aug 24 ~~July~~ Start 0945. Not a creature is stirring. These guys are ever so close to being out of store. A ♂ + a ♀ seen briefly, but that's all

26 Aug Try again at 0730. NB Juv (or ♀?) Oriole here foraging with a ♀-plumaged W. Tanager. 0800, J576 LBlue-Blk/LBlue-Black here, looking like he'll be a bonafide ♂. ♂173 or/M, LBl-Blk/LBlue-Black

15 Sept Cruising by at 0900, ♂173 or/M, J576, plus a 3rd bird, are all I see for sure. A hint that 576 is ♀ but, not sure

sub

dom	J573	J575	J574	J576
J573	—		1	1
J575		—		11
J574			—	
J576				—

Melanerpes formicivorus

Hay - Blom

30 Sept Start 0820. Seems to be an intruder here, lots of chasing just W of the granary. Lots of acorn gathering action, primarily from the nest tree and the wooded area NE of the nest tree. Flight times are about 12 sec to nest tree, 15 sec to other area. I'm not sure they're getting anything from the nest tree, perhaps just decapping, etc. Early there was a very persistent intruder around. When I first arrived there was a Juv ♀ intruder with light bands, perhaps 7589 from Low Hay. Don't know if that was the cause of the chasing. Acorn storage data on back. I saw 40 stored in 100 minutes between 0825 - 1005. Only ♂173, ♀484 ♂576 around, so looks bad for J573-J575. 1030, I find the tree these guys have been using. A live oak loaded with acorns

2 Dec Start 1230. ♂173 Or/M, ♀484 BPK-Or/BlK, and ♂576 LBlue-Blk/LBlue-Blk all seen well. Very little storing but some fooling around in the granary. End 1430.

granary census

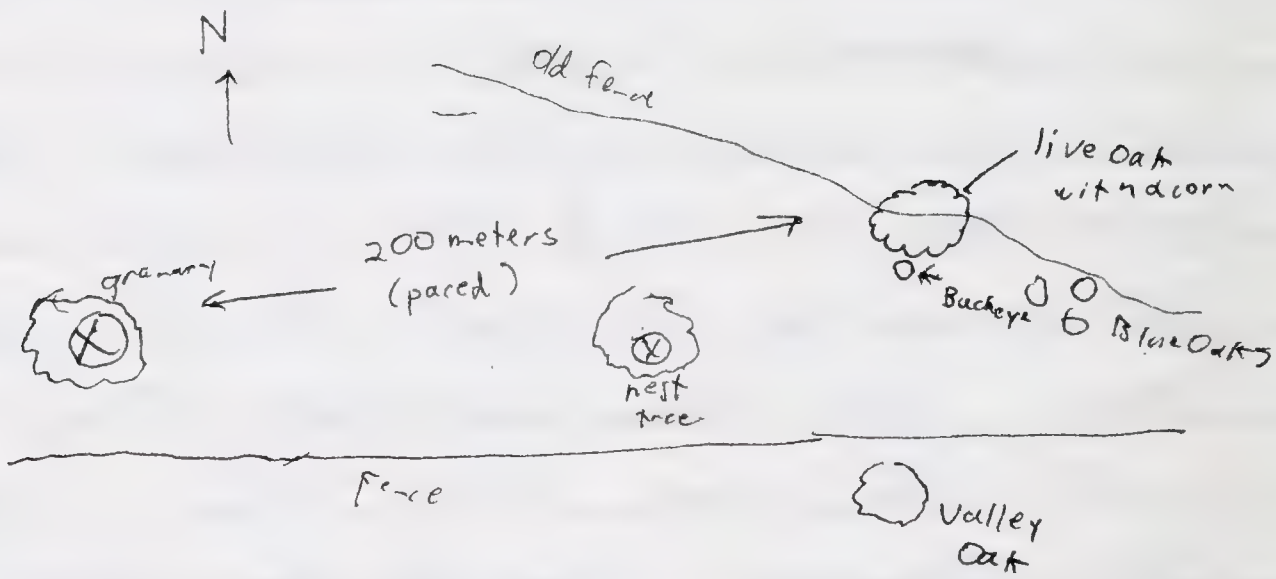
30 Sept 1980

0825	♂173
0830	♀484, another
0835	♀484, ♂576
0840	?
0845	♀484
0850	nobody
0855	♂173
0900	? chasing
0905	♀484
0910	♂173
0915	?
0920	?
0925	

100 min of storage ~~[illegible]~~ 0825 – 1005

	♀484	♂173	♂576
	𝍸	𝍸	𝍸
	𝍸	𝍸	𝍸
	𝍸	I	IIII
# Stored	15	11	14

Total per 100 minutes $\boxed{40}$



2 Dec 1980

1230	♂173
1235	nobody
1240	♂173
1245	♂173
1250	all 3
1255	♀484
1300	nobody.
1305	nobody
1310	nobody
1315	nobody
1320	♀484
1325	♀484 ♂173
1330	♀484 ♂173
1335	♂173
1340	♂173 NI
1345	♂173 NI
1350	♂173 NI
1355	nobody
1400	~~[illegible]~~ nobody
1405	♂173 ♀484
1410	♂173
1415	♂173 ♂576 ♀484
1420	all 3 NI
1425	♂173 ♂576 NI
1430	♀484 ♂576

Storage

♀484	♂173	♂576
1		

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Melanerpes formicivorus

Lower Haystack — Hastings Reservation

29 March Start watch 0950. Nobody in granary, but one bird seen at Far Tortuga. Accipiter cooperi cruises over at 1000. 1008 ♂307 (orange R), flycatches from Valley Oak in the Far Tortuga area. (F) 1040, everybody here ♂511 wht-yell/metal, ♂461 M/LBlue-white, ♀515 DGrn/M DGrn/Yel, all flycatching like crazy. End 1050. As I leave, ♀515 goes into a huge frenzy of hawking, storing all the insects she gets in a dead stub on the S side of the granary. The holes she stores in are smaller than typical granary holes. Going to check nest holes.

6 April Start watch 1530. Nobody here. 1550, ♀515 DGreen-Yellow eating stored acorn in suppl. granary (F). 1555, ♂307 arrives, wakas with ♀515. He also eats stored acorn. No sign of ♂461, so no "packing" yet. End 1630.

10 April Start watch 1100. Nobody in granary as I arrive. Hole check produced nothing. 1125, ♀515 in tape hole tree, flycatches (F) 1210. Pretty dull here, ♂307 here too, but birds are very blasé. No sign of nesting (although ♀515 did peer in the granary hole once. No sign of ♂461, ♂511. End 1215.

15 April Start 0845 ♂307 + ♀515 in granary as I arrive, plus a 3rd bird at the top of the hill. 0855 ♂NB in granary, chased hard by ♀515, less by ♂307. ♀515 gleans from leaves (F). All these new leaves, I've seen a lot of that. 0915. I'm wondering if ♂461 + ♂511 aren't trying to disperse somewhere. I haven't seen them around, although Nancy has seen 3 + 4 birds at roosting. 0925, I take that back, ♂461 cruises across territory, ♂461 DBlue-White/LBlue-white.

Melanerpes formicivorus

Lower Haystack

(15 April) 1050, ♂511 white - yellow / white / metal here, eats acorn (F).
♂307 + ♀415 definitely hanging out. 20 minutes together in granary, nobody else around. Only fleeting glimpses of ♂461 + ♂511. Interesting, especially in relation to Nancy's dominance interactions + copulations at roosting. End 1030.

17 April ♂501 at Plaque briefly.

18 April Start watch 0640. Nobody. Correction, ♀515 and ♂307 here as I arrive 0655, Hot Damn! A fantastic
→ copulation between ♂307 + ♀515. 2 separate
*** mount exchanges, hermounting first (quickly) then
→ a long, prolonged, tail twist, cloacal contact copulation, 5-7 sec. duration. The copulation took place in the tree south of the granary, with the hole that faces straight down. 0710, ♂307 chases ♂NB. Haven't seen ♀515 after watching her fly to granary. In nest, perhaps? 0715, She's back in sight. Where is ♂461, though? 0725, ♂461 shows up! Good! Greeted warmly by ♂307 + ♀515. End 0810

21 April A nasty rainy day, checking holes here. Zero.

24 April Start watch 0920 ♀515 in granary, perhaps others as I arrive. Yes, ♂307 ♀515 eats acorn bits (F). ♂461 shows, he and ♀515 fly toward Arnold, toward knoll where other holes are, perched in "tape hole" tree. As far as I could tell, ♂307 did not follow, although he may have. 1003 ♂307 + ♀515 still there, going to check 1045 Everybody seems to have disappeared. Nobody in any holes that I know of. Not much happening. End 1130.

18 April: Birds in same tree or within 5 meters, at 5 min intervals

0640	♂3 + ♀5
0650	♂307 + ♀515
0655	"
0700	"
0705	"
0710	"
0715	"
0720	"
0725	Core 3
0730	"
0735	♂307 + ♀515
0740	separate
0745	♂307 + ♀515.
0750	Core 3
0755	~~♂307 + ♀515~~ all separate
0800	♂307 + ♀515
0805	"

---

24 April

0930	♀515, ♂461
0935	?
0940	?
1055	♂307 + ♀515
1100	"
1105	"
1110	"
1115	?
1120	?
1125	♂307 + ♂461
1130	all 3
1135	

Melanerpes formicivorus

Lower Haystack — Hastings Reservation

26 April — Start 0630, nobody around. 0750, a pretty boring watch overall. Again, ♂307, ♀515, ♂461 all here, not doing much, but hiding in granary very well. Again, ♂307 + ♀515 seem to be together more, but I lack ~~[illegible]~~ data (didn't have them in sight often enough). At one point, a ♀NB intruder chased (without a lot of élan) by ♀515. Going to check holes. Whoops, ~~[illegible]~~ another ♀515 chase of ♀NB.

30 April — Start watch 1610. ♂307 + ♀515 here. ♀515 chases (without a great deal of enthusiasm) a ♀NB intruder from the granary. 1730, these guys still don't look very interested in nesting any time soon. Both birds fooled around in the granary most of the time I was here. Very difficult to watch though.

1 May — Trying again in a howling wind 0700. ♀515 huddled in the granary near the "hole" I thought I flushed a bird from yesterday! Oh No! 711 a bird heads out there, flies off. 711.50, ♀515 enters. The ultimate pisser! Incubating already. Back at 1630, a struggle to get into the nest, but 3 eggs
Green - Pink (n)/w

2 May — A nest watch here. high point was ♀524 intruding here, chased (presumably) by ♀515. ♀515 very suspicious of opened nest. She is indeed a wiley one. Seemed like 4 birds here for awhile, perhaps ♂511 back from his wanderings.

Roosting was pretty neat! I think ♀515 was in the hole when ♂307 came to the hole. The bird in was reluctant to leave, untill ♂307 pecked at it a few times! Anyway ♂307 roosted alone!

700.00 ♂307 in
711.00 ♂307 leaves
711.50 ♀515 enters
721.30 out
722.00 down
723.20 ♂307 at nest,
flies off
♀515 out
723.50 down
731.00 out
731.30 leaves
734.00 ♂307 enters
737.30 ♀515 visits,
♂307 does not leave.
743.50 ♀515 replaces ♂307
753.00 " leaves
756.00 " enters
805.30 ♂307 replaces
825.30 out
826.30 down
827.40 ♀515 enters
♂307 leaves
835.00 hopelessly foggy
♀515 in nest.

Melanerpes formicivorus

Low Hay

3 May — A nest watch here today, the highpoint being ♂521 from Plaque intruding.

5 May — Roosting, and I was confused. I thought I saw ♂307 enter at ~~a~~ 2015 hrs, but then "he" was replaced by a bird with either a metal or yellow band (I thought the latter) But, I did not see the wingstreamer as "♂307" left! so it could have been ♂307 or ♀515.

6 May — A nest watch, and the eggs have hatched! Even ♂511 active, in the nest as I arrived. Also ♂461 shows his face.

13 ~~May~~ June — Start watch 0945. 1105, finally I see a juv, all dark bands on R leg, presume J588 DPink/DGreen. ♀515, ♂307 also around. Birds hanging out in "roosting area". No Flycatching seen yet today. Also J589 Yellow-LPink.

23 June — Start 0900. Dominance, J588 ~~[illegible]~~ chases an unknown juv, perhaps J587. 0925, a juv intruder Yellow/Black J561 from 1800, no doubt. Just up the valley from home. Actually, that probably was who J588 chased. 1100, Sheer boredom. Birds over on Far Tortuga, etc.

30 June — Start 0640. 0900, These guys are a problem. They are not coming to the granary, even though plenty of acorns mostly in U Hay area, and also Far Tortuga. However, I did manage to see everybody save ♂511. All 3 juvs OK, no dominance seen, though. A bit of rain up here. End 0910.

1 July — Trying again 0720. J LBlue (orn) / Metal Mauve / L Blue here, with an weird NB ♀ (much red on forehead), and another juv, NB. Hard to tell who this could be. NB ♀ chased by ♀515, NB Juv chased briefly by ♂307. I also think I saw a NB ♂

Melanerpes formicivorus

Low Hay

(1 July) but I wasn't sure. Everybody seen in the VO between the Low Hay + erstwhile U Hay granary. ♀NB + Juv NB originally in L Hay granary, where chased. ♂307 fooled around with them in the other VO, but he didn't do much. pretty confusing, but I think I saw 3 good intraspecific territory defenses. I'll have to find out who that banded Juv. is.

* → On top of all that, I think I got a hint of Juv dominance. J589 seemed to move away from J587, both begging from adult bird. Not iron-clad, however.

Extra, the intruding juv. is J570 from Gazebo! What was he doing up here with all those strangers?

Once again, everybody seen except being ♂511

4 July Start 0900. Some intruder here is chased by ♀515 and ♂587. Very persistent, has returned many times, but I haven't gotten a look yet. Hint of J587 ≫ J589, as the latter once again looked subordinate when J587 near. Also, J587 seems to approach J589 freely, but not vice versa.

J metal/wht/L blue (?) with a really gunked-up face (black streaks all over the white) seems to be the culprit, but that band reading could be way off.

1130, things pretty dull, although J588 + ♂307 also seen.

5 July Start 1045, ♀515 here as I arrive. Boring - end 1145

7 July Start 1045, J565 wht/LBlue from 1800 intrudes here, chased out. 1120, a hint that J587 ≫ J589 again, latter moves away. End noon.

8 July Start 0830. ♀515 in granary as I arrive.

Melanerpes formicivorus

Low Hay

(8 July) 1000, a good case of J587 pecking J589, while begging from ♀515. ♀193 DPink/M from 1800 intrudes here, chased out by ♀515. 1100, a hint that J589 >> J588. J588 working acorn caps (!) at anvil, J589 approached, J588 head turned! Could be! 1130, J588 working acorn after begging from ♀, ♂587 approaches, pecks J588, takes part of acorn. Hm I finished with these guys? Would like to see J588 - J589 again, but it looks like J587 >> J589 >> J588. Again, no sign of ♂511. When was he last seen?

24 Aug Start 1045. ♂307, ♀515, ~~[illegible]~~ J589 (looking like a ♀, though just barely, and another juv. all here. The other juv was I think J588 and ♂, but I wasn't certain.

26 Aug Start 0900. 1015, ♂307, ♀515, and finally J588 DPink/DGreen(R) Yellow/LPink here, looking like a solid ♂ (I think). J589 also. ♂761, J587, and ♂511 all missing. Noon, finally, I see J587 wht-Blk/BPink-Blk, after much ado, and I believe that 587 is ♀587. Thought I saw black on the forehead, but I wasn't completely sure. Also, these guys appear to be sapsucking from a Blue Oak (!) over in the nest hole area. Walking over to investigate, yes indeed, J588 sapsucking from a small ~~[illegible]~~ (6 inch dbh) scraggly Q. douglasii, forming a nice triangle with the 2 roost hole trees. It is about 15 m N from the "Starling & tape" tree. He even chases titmouse and hummingbird. Also, a 2nd blue oak 8 meters East of 1st sap tree.

23 June - 7 July

dom	J587	sub J589	J588
J587	—	4	1
J589	0	—	1
J588	0	0	—

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Low Hay

15 Sept Start 1000. ♂307, ♀515, J♂588 + ~~J~~ JF589 all seen quite well. Where's ♂461 + J587?

2 Dec A quick watch produces ♀515 DGrn/Yellow, ♂307 Orange R, ♂461 Metal / LBlue-wht. Cold, strong wind. leaving.

20 Dec Start 0935. granary census on back ♂307, ♂461, ♀515, ♀587 all seen very well indeed, but the two other 1st yr birds are conspicuously absent. End 1135.

20 Dec 1980 granary census Low Hay.

0935 Nobody
0940 "
0945 "
0950 "
0955 "
1000 "
1005 ♀515
1010 ♂307
1015 nobody
1020 "
1025 "
1030 "

1035 nobody
1040 "
1045 ♀515 ♀587 ♂461
1050 ♂307 ♀515 ♂461
1055 " " " ♀587
1100 ♂307 ♂461 ♀587 ♀515
1105 "
1110 "
1115 ♂461 ♀515 ♀587
1120 ♂461 ♂307 ♀515 ♀587
1125 " " " "
1130 ♀515
1135 ♀515

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Blom - One — Hastings Reservation

11 Jan Start watch ~~0[illegible]~~ 1535. Many cows + a bull around. No woodpeckers, though. end 1700.

25 Jan Trying again at 0900, with far fewer hooved ungulates.

~ 0925, ♂479 arrives, chasing banded ♂ nuthatch ♂479 DBlue/DBlue-Yell(N). 0950 ♀496 mauve/Lgreen here briefly. 0955 Starling chased out of granary by unknown bird. 1005, ♀494 Red-white/Red briefly in granary. 1030, ♀(?)

– chases nuthatch. 1045, ♀496 chases Titmouse. 1155 2½ hr seen these 3 birds many times now, so it looks indeed bad for ♀478 and ♀495. If they are gone for sure, that will put an end to our best laid manipulation plans. End 1206.

13 March Trying again at 1515, this time sitting down by the pond.

~ in the open. 1600, a ♀ ~~[illegible]~~ (didn't see bands) chases

(D) ground squirrel from granary. 1645, after walking around, ♂479 metal/DBlue-Yel(N) found, top of the valley oak in the Ravine behind Blom-one (towards Hastings). On the knoll, ♀494 white-Red/ . End watch 1715. 2 birds in granary at arrival. No foraging. 1 Granary defense. No Intraspecific intruders. 120 min (2 hrs).

14 March Once more, 1350. Nobody in granary on arrival. ♂+♀ nuthatch in granary, eat acorns, not chased (Nobody home). 1440, ♀496 mauve/Lgreen here, along with a second unidentified ♀. 1600, ♀494 wht-Red/metal. A ♂ also around ♂479 DBlue/DBlue-Yellow(N). I saw 4 birds at roosting last night. Who was #4? ♀496 noted foraging (acorns), no granary defense. end ~~[illegible]~~ 1700.

Melanerpes formicivorus

Blom one — **Hastings Reservation**

29 March Cruised by here at 1130 to check out the post-manipulation activity. A few days ago, Walt ambushed here, removed the breeding ♂479 (♀478 was still here), and the ♂ was replaced by a 1st year Corral Viejo bird! I saw the new ♂, ♀496 Mauve/LGreen. [redacted] Certainly no fancy revolution activity here. I'll come back later.

1 April Start watch 0900. New ♂ Or-LPink/DPink/metal & LPink here, plus one other bird as I arrive. 0930, ♀494 white-Red/M
— eats acorn bit (F). 0935, she takes a quick look in the
— hole north of the granary tree! 0945 ♀494 chases junco from granary. 1000, ♀478 DBlue-Or/DBlue-Or
— eating catkins (F). It looked like she was being chased by ♂new. I also thought 478 was a ♂, but the bands checked out perfectly. 1010, ♀496 Mauve/LGreen
— chases an intruder of unknown sex! ♀494 + ♀496 flying around together. ♀494 gave up a bit of acorn to ♀496, moving away from where she was working, allowing ♀496 a shot. New ♂ probes in dead stub, gets earwig! (F). The ♂ seems to be checking out every potential nest hole. He's also looked in and entered a hole in the VO north of the North Hole (Certain facing pond. End 1100.

8 April Start 1500. 3 birds in granary as I arrive, and it sounded like one was working on a ~~roost~~ nest hole, on the S side of the granary, or even in the adjacent Valley Oak. 1550, 3 birds hanging out
→ on "The Knoll". 1600, ♀494 and another ♀ chase magpie, ♂513 eats acorn (F). ♀496 also here, probably also chased magpie. ♀494 flycatches (F). 1645, ♀478 Metal/ with a

Melanerpes formicivorus

Blomone Hastings Reservation

(8 April) bit of dye on the forehead to the south. Something strange, I thought I saw ♀494 fly to the place ♀478 turned up later, and immediately ♀494 fought with another woodpecker there. Hmm! 1655 Extra!! ♀478 pecks at another ♀, which I think (or pretty sure!) was ♀496!!! Could have been somebody else, but I saw her well enough to determine no metal bands. My "♀478" has the dye on the forehead, and a metal band on the left leg, fairly certainly below!! End 1715.

21 April I flush a bird out of last year's nest hole. They may have a nest, or it may reflect the wretched weather.

19 June I come by looking for Juvs at 1030. 1215, all I've seen is J584 (Metal/) plus ♀478 (DBlue-Orange/ ") and ♂513 (DPink/metal). Really, no sign that other birds might be around.

19 July Start watch from hide 1125. ♂513 or-BPink/Or and J584 (M/BPink) both here. Juv has a very light eye. 1340, that's all. Worried about J585 + 586. The ~~other juv was I think~~ J588 and ♂, ~~but~~ wash

30 Aug Start 0810. ♂513 or-BPink/Or here chasing an intruder (Juv) that I think was manve/metal, meaning J570 from Gazebo. Couldn't be sure of sex, but it also appeared to be a ♂. 0835, after a struggle, blind is up! ♀478 (Metal/) M/DBlue-Or, and J (looking like ♂) 584 BPink/manve also here. Starting to look bad for the other 2 Juvs. End 1045

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Blom 2

4 June Opened the nest in the Valley Oak that Walter + I independently discovered today + yesterday: 4 eggs!

22 July Roosting, and I see 2 birds roost in the hole just above the nest hole. Itn ambush may be in order.

1 Aug I set ambush (first solo effort). 2 birds roost, but I saw a third bird flying around, so may be 3 in the group

2 Aug NO dice! Flap doesn't close properly. Such is life.

26 Aug Try roosting here again. I flush 2 birds out of the same hole (above nest hole). But 3 go back in later. Definitely 3 birds in this group.

29 Aug Successful ambush here! Very confusing roosting on 28 Aug, but I saw at least 3 + perhaps 4 birds go in. This morning I bag 4 birds! All banded, and all from Gazebo, ♂516 J(♂)569, J(♂)571, and J(♂)572). J572 stayed in the hole a full hour past everybody else (!) only emerging when I reclimbed to bring the bag down. Questions: ① Have these 4 ♂♂ really moved here, or has Blom 2 been abandoned after failed nesting this spring, and Gazebo birds are just hanging out + roosting here? Former possibility supported by the fact that all ♂♂, including juveniles, and they looked like they were pretty settled here. I'll have to watch at Gazebo. ② If they have moved here, was it to replace a dead male, or occupation of an abandoned territory? ③ Do they have a female? I thought I may have seen one while processing others. Where is she roosting?

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Melanerpes formicivorus

Gazebo — Hastings Reservation

16 April — 3 birds roost in the "arch hole", south of the granary area along the road.

17 April — Cruise by at 1645. Good + bad news. I flush a bird out of the low hole just downhill from the granary. Bad for our manipulation, if they already have a nest. Good news is that at least one of the babies is still here looking like a member in good standing. ♀509 (Metal/LGrn-DGreen) here, eating a huge catepillar! (F). Also ♂516 (Mauve/Blk-wht (N)) plus at least 1 or 2 others. 1715 ♀485. Also ♂517 (LPink/Metal). ♀510 may have also been around, but I couldn't be sure.

3 June — Swung by here just to see if the death of the honcho ♀ had precipitated a revolution. No evidence of such though, The babies seem to have fledged.

19 June — Cruised by, and couldn't find anybody, save for a very fleeting glimpse of a juvenile.

24 June — Another visit at last producing some sightings. ♂517 (LPink/m LPink/LBl), J569 (Yel-Blk/Yel-Blk), and J572 (metal/white/?/?). Very little activity, however.

1 July — J570 intruding at Low Hay! See LH notes

29 Aug — 4 ~~Hill~~ ♂♂, including 3 Juvs + ♂516, at Blom 2, roosting. (see Blom 2 notes). Have they moved there, or are they just hanging out?

13 Sept — Answer; Just hanging out. Here at Gazebo at 1030, I see all adults ♂516 (DBlue-Yellow/DBlue), ♂517 (LPink/LBlue), ♀509 (metal/LGreen-DGreen/Yellow), plus at least a couple of Juvs I couldn't read bands of. (Hanging out on N side of fence) but definitely Gazebo. No new ♀.

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Gate — Hastings Reservation

1 April — Watch start at 1345. Cooper's Hawk soars by, a banded ♀ Black-Yellow/Black in the Sycamore, And I think I read bands as ♀519 Black-Yellow/M. 1430, confirm. ♀519, plus a NB ♂. ♀519 eats acorn (F)

6 July — Start watch 1055 ♀519 Blk-Yel/Blk, J601 LGreen/Yellow, and at least 1 ♂NB here, but no sign of J600.

25 Aug — ♂626 intruding at Road 1

9 Sept — Start 1030 ♂627 LPink/DBlue LPink-DBlue/M, ♀519 Blay-Yellow/Black, and J601 LGreen/Yellow all here. J601 doesn't look like he's molting yet. These guys are out of acorns. Seem to be hanging around on the Arnold side of the road. 1110, ♂626 Metal/DBlue-unk (N) completes census.

11 Nov — Start 1415. 1520, finally spot some birds in the live oak roost tree, then in Live Oaks on Haystack Hill. J601 LGreen/Yellow metal here in ♀ plumage (tadah!), and mom, ♀519 Blk-Yellow/M is also here

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Westgate — Hastings Reservation

1 April — a NB ♀ here, eating acorn, (F) at 1400. Watch started at 1345. 1430, ♂58 (L Green / L Green) No leg shows up, also eats acorn. (F) with ♀. No sign of NB ♂ yet. 1445, I can scarcely believe it, but ♂58, old stumpy, brings in a capped live oak acorn and starts to work it!! Acorns still on the trees on April 1? Very impressive! He Exchanges wakas with ♀774. Where's ♂721? End 1500

21 April — A bird looking out of the "west sycamore hole at the the center stub, top", the hole they were roosting in last summer. It may be on a nest that walter won't be able to get to, or just reflect bad weather.

9 Sept — Start 1030, Good old ♂58 no leg flycatching from sycamore Also, ♀599 metal/L Blue-Red, also flycatching. These guys ~~are out of acorns, I do believe~~ still have a fair number of acorns put away.

11 Nov — Start 1415. Old one leg ♂58 still here, also ♀599 metal/

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Road 1 — Hastings Reservation

1 April Start watch 1530. Nobody in granary as I arrive. 1600 Dull + cold: Checking holes, then splitting.

7 April Trying again, 1145. Nobody here as I arrive. 1205, ♀ Yel-DGreen/Yellow briefly in sycamore, plus a ♂ north side of road, Valley Oak. 1245, giving up, not a good day to watch here. 1300, back at it down by the nest holes. 2 Swifts high overhead. ♀383 and ♂486 (DBlue-Or/Wht-Or Metal/DBlue-Orange) here. 1315, ♀383 flycatches (F) 1220, leaving for good, after checking holes. Whoa, ♀269 (DBlue-wht(N)/white) up on PO ridge, top of live oak.

9 April Start watch from PO Hill 0930. ♀269 chases Stellers → Jay. 0945. ♂486 metal also here. They eat acorns, ♀383 Yellow-DGreen/metal Flycatches (F x 3). Definitely 2 ♂♂ here and I believe I saw ♂294 BPink/DBlue-Yellow. ♂486 flies with + follows ♀383 twice. Other than that, nothing out of the ordinary. Spent some time up around Valhalla. Definitely no nest yet, as I had all 4 birds in sight most of the time.

14 April Start watch from PO Hill 1500, Light bad. 1600, Accomplishing nothing, giving up.

15 April Start from hide 1330. ♀383, ♂294, ♂486 all here. briefly. 1440 Nobody else. End.

16 April Start 0845. ♂486, ♀269 + ♀383 together in top of nest sycamore. ♀383 flies to a 4th bird (♂294?), wakas. 0900. 3 crows in granary, hotly harrited and "buzzed" by ♂294. a ♀383(?) did some (but very little) chasing. ♂486 was nearby, did nothing. Looks off hand like

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Melanerpes formicivorus

Road 1

(16 April)	♀269 + ♂486 associating,	0920	♀269, ♂486 2m ♀383 6m
	♀383 + ♂294 associating	0925	♀2, ♀3 ♂4 1m ♂2 30m
	3(F). The ♀♀ really	0930	"
	seem to be flycatching a lot,	0935	♀3 60m ♀2, ♂4 1m
	the ♂♂ eating acorns. Have	0940	♀2, ♀3 2m
	yet to see a ♂ flycatch	0945	??
	1040, ♂ NB intruder, chased	0950	♀2, ♂4 1m ♂2, 30m
	slightly by ♀383, then strongly	1000	?
	by ♂294. 1055, a ♀	1005	♀2 ♂4 2m ♀3 ♂2 3m
	looking out of last years	1010	♀2 ♂4 2m ♀3 30m
	nest (in the creek	1015	~~♀3, ♂4 2m~~ All 3m
	sycamore). They must	1020	"
	be thinking about it.	1025	♂4, ♀2, 2m ♀3, ♂2 2m } 30m
	End 1100.	1030	All 3m

17 April Start watch 0830 0850, a ♀ in the nest, ♂486 "visits" while she's there. I think ♀269 in. 0920, ♀269 in again. 1005, ♀383 looks in, does not enter.
1015, ♀♀ together on horiz. branch, both give tail up wing droop waltzes. 1025, ♀269 in again, visited by ♂486
1030, ♀383 enters nest, leaves after 2 min
1035, ♂486 enters nest, immediately followed by ♀383. They could have been in the nest at the same time, but I couldn't be sure. ♀383 stayed several minutes.
1055, ♀269 enters nest, ♂486 visits. If they don't already have eggs, they must be ready to any day.
End 1100.

18 April Start watch 0910. Nobody in nest

Birds within 5 meters (or so) of each other, or in same tree

17 April

Road 1

0840	♀2, ♀3
0845	?
0850	?
0855	♀2, ♂4 } ♀3 ♂2 }
0900	?
0905	?
0910	♀2, ♂2, ♂4 } ♀3
0915	♀2, ♂4 }
0920	♀3 ♂2 }
0925	?
0930	♀2, ♂4
0935	♀2, ♀3, ♂2
0940	all 4
0945	all but ♀3
0950	"
0955	♀2, ♂4
1000	all but ♂2
1005	♀2, ♂4
1010	"
1015	?
1020	?
1025	♀2, ♂4 he visiting her in nest.
1030	?
1035	? — ♀3 + ♂4 in nest together (?)
1040	♀3, ♂2
1045	"
1056	♂4, ♀2 } ♂2 ♀3 }
1055	ditto ?
1100	

Melanerpes formicivorus

Road 1 — Hastings Reservation

(18 April) 0915, 4 crows in granary, everybody there. 0925, 11 crows in granary. Residents not giving chase. 0950. All manner of moving around today, birds not staying put. 1000, ♂294 chasing crows around some. 1005 Dominance! -- both ♀♀ fly to the males west of the nest tree, tail-up walkas

*** ♀269 delivers a short but sharp peck to ♀383. Makes very good sense!! ♂486 chases ♂ intruder. ♂294 chases crows. 1010, ♀383 in nest. 1045. These guys are still harvesting acorns from PO Hill Live Oaks!! A very impressive acorn crop! Earlier, ♀269 in hole, visited by ♂486 once again. Some of the birds harvesting acorns must be Finch, perhaps entirely. Flying along of PO Hill to Finch + back. 1110. Surprise, a 3rd ♀ here briefly — Metal/? Flew off toward Finch! Perhaps ♀293 coming home. Near nest, next to ♀♀ (383 in hole at time) everything seemed cool. Don't know who else it could have been. 1130. ♀269 escorted to nest by ♂486 again, she enters. 1140. in hole together! 1150 end watch.

Back at 1530, Walter does the impossible and checks the nest. 2 eggs. Hot damn! All-morning watch coming up tomorrow!

At roosting, one bird in the nest very late, ~~that~~ the other three in last year's hole above.

19 April A truly astounding watch here today!! The main highlight is that I actually saw a bird fly from the nest carrying an egg!! (see details below). Walter courageously climbed up to the nest again in the

1045 2♀♀, 2♂♂

18 April

0915 all 4
0920 all but ♀3
0925 ?
0930 ?
0935 ♀2, ♀3, ♂4
0940 ?
0945 ?
0950 ?
0955 ?
1000
1005
1010
1040 ♀2, ♂4
1145 ♂4 ♀2
♂2 ♀3
1150 "

---

19 April 1980. Road 1. Birds seen together (same tree or within 5 m) at 5 min intervals.

0615 ♀2 + ♂4
0620 " not ind.
0625 " indep.
0630 ?
0635 ?
0640 ?
0745 ?
0750 ?
0755 ♀2 + ♂4 ; ♂2 + ♀3
0800 ?
0805 ~~All 4~~
0800 All 4
0915 ♀2 + ♂4
0920 -
0925 Two Pair
0930 " (not ind)
0935 all 4
0940 ?

0645 ♂2 + ♀3
♂4 + ♀2
0650 ♂4 + ♀3 *
0655 ?
0700 ?
0705 ♀2 + ♂4, ♀3 + ♂2 not ind.
0710 " "
0815 ?
0820 all but ♂2
0825 Two pair (♀2 + ♂4)(♀3 + ♂2)
0830 ?
0835 ?
0840 ?
0945 ?
0950 ♂4 + ♀2
0955 ?
1000 ?
1005 ?
1010 ?

0715 ♀2, ♂4 ; ♀3 + ♂2 ind.
0720 " not
0725 " ind
0730 " ♀3 + ♂2 in
0735 All 4
0740 "
0845 All 4
0850 All but ♀383
0855 ♀383 ♂294
0900 ?
0905 All but ♂294
0910 ?
1020 all but ♂294
1030 ♂4 + ♀2
1035 all but ♂29
1040 Two pair
1045 ♂4 + ♀2
1050 " ind

Following: ♂486 following ♀269:
~~IIII~~ ~~IIII~~ ~~IIII~~ III

♂294 + ♀383
~~IIII~~

♂294 + ♀269

♀383 + ♂486

with ♂486 1
w/o ♂486

in notes, ♂294 failed to follow ♀383 "on a few occasions"

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Road 1 Hastings Reservation

(19 April) afternoon to find 3 eggs (2 yesterday) but only one of yesterday's marked eggs there and two fresh ones! A confirmed communally nesting pair of ♀ sibs, plus evidence of a whole lot more intrasex competition then we might have previously thought. Fantastic! The nitty-gritty details will follow below, in the transcription of my 20-min tape I made on my 6½ hour watch. Also good data on association ("pairing", dare I say!) between ♂486 + ♀269 and between ♂294 and ♀383:

0500, Birds emerge from roosting. The ♂ in the nest peered into the roosting hole above, then all birds emerged at 0503. 0515, 2 birds in the VO, then a third. Some kind of mounting activity (looked like a ♂ being mounted), but I missed it.

0533, ♀269 enters nest! Visited by ♂486 at 0536, head out. 0537 ♀269 leaves.

0538 ♀383 enters nest! 0540 head out. 0547 leaves

0601 ♀383 visits nest, vakus, flies off

0606 ♀383 enters, head out 0607. 0610 leaves

0618 ♀269 at nest, ♀383 arrives enter, ♀383 enters: 0627 head out 0630 down. 0634 out. 0639 leaves

0647 ♀269 enters 0651. ♂486 enters also. 0652 ♂486 leaves 0657 leaves, followed by ♂486

0658. ♀383(?) enters. 0600 nest empty

0710 ♀269 enters nest. 0711 out. 0714 ♂486 at nest, ♀269 leaves, back at hole 0722 flies away

Melanerpes formicivorus

Road 1 Hastings Reservation

(19 April) 0731, ♀269 at nest, 0732 flies off. ♂486 enters briefly, follows ♀269

0734 ♀269 enters, ♀383 arrives, wakeling, looks in, flies off. ♂486 visits briefly, 0739 ♀269 leaves

**** 0744, Someboody enters nest! 0745(?) Bird flies out of nest carrying a egg! flies to Valley Oak below and across the road from the secondary sycamore granary, just below the main granary. I do not see the bird drop the egg there (nor do I later find remains under that branch along the road). Trying to scope the bird, I lose it. Extreme profanity and frustration follows.

I believe the bird was ♀383, but I do not know for sure. My reasons for believing thus are as follows:

① It was not ♂486. I had him in sight in the top of the sycamore adjacent to nest while the mystery bird was in the nest.

② After losing the "tosser" I tried to find the other birds. There was confusion, and it is entirely possible that the tosser could have snuck back, but the first 3 birds I picked up in the nest area were ♂486, ♂294, ♀269.

③ ♂294 has yet to enter the nest, and he visits it rarely

④ If the mystery bird were ♀269, I'm sure ♂486 would have followed her! Instead, he remained in the sycamore adjacent to the nest. In my entire 6 hour watch, I do not think I saw ♂486 more than

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Road 1 Hastings Reservation

(14 April) 20 meters or so from ♀269, and certainly never out of sight. Although I couldn't account for ♀269 at the critical moment, I suspect she was in the ~~[illegible]~~ sycamore near ♂486.

(5) The mystery bird flew to one of ♀383 favorite perches.

(6) The mystery bird entered the nest quickly, without hesitation, as ♀383 has done. ♀269 tends to pause.

(7) ♀269 was in the nest 3 or 4 minutes prior to the mystery bird.

(8) When I later resighted ♀383 has some suspicious looking yellow stuff on her bill, then later I noticed liquid glistening off it. Suspicious, I admit, but it could have been something else (Eating eggs?)

In summary, I would guess that it was ♀383, although I can't entirely eliminate ♀269. ♂294 seems unlikely.

* 0835 ♀383 enters nest leaves 0840 (?). ♀269 perhaps a gentle peck to ♀383, but not sure. Perched above nest hole.

The rest of the watch was spent getting follows and association data. Important additional points:

(1) ♀269 + ♂486 are a very, very tight pair. They were essentially never out of sight, and ♂486 always followed her. Even when she was in the nest, ♂486 would always wait in the sycamore nearby. The other pair (♀383 + ♂294) did not seem to be

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Road 1 Hastings Reservation

(19 April) nearly as tight. They were frequently apart, and ♂294 failed to follow her on a few occasions.

(2) A helpful ID hint: ♂294 has a point of red impinging on the white of his forehead. helping out the ID

See page 3 (back) for data!

20 April An inauspicious beginning to the watch, as I forgot my binoculars, and had to hustle down the hill and drive back to get them. By the time I got back up, it was 503, and the birds were already out. It was a pretty routine watch, no egg-tossing, dominance, copulations, etc.

0517 all 4 birds in sycamore near nest.

0531 ♀269 in nest, out ~~[illegible]~~. 0535

0535 ♀383 enters 0537 head out 0538 down 0542 out 0544 ♀383 leaves nest.

0547 ~~[illegible]~~ ♀269 enters nest. ~~[illegible]~~ 0551 ♂486 visits, she leaves, he follows.

0603 ♀269 enters nest. ♂486 flies off, ~~not~~ attending her for the first time, returns at 0606. ♀269 leaves at 0608

0623 ♀269 enters nest 0624 leaves, followed by ♂486

0626 ♀383 enters. 0635 head out 0636 back down 0640 head out 0658 ♀383 leaves.

0700 ♀269 enters 0708 head out 0709 leaves, foll. by ♂486

0716 ♀269 enters, ♀721 ♂486 visits for 1 min 0727 head ~~[illegible]~~ out 0731 back down. 0739 head out, back down. 0740. ♂486 enters too ♀269 leaves, he follows.

20 April 1980 Road 1 See page 3 for details

0520 All 4
0525 " NI
0530 " NI
0535 " I
0540 ?
0545 All 4 I

0550 2 Pairs ♂486, ♀269 ♂294, ♀383
0555 " I
0600 All ~~but ♀383~~ 4
0605 All but ♀269
0610 ♀269, ♂486, others separate
0615 All but ♂294

0620 ?
0625 ♀269, ♂486
0630 All but ♀269
0635 All but ♂294
0640 " NI
0645 All 4
0650 All but ♂294
0655 " NI

0700 All but ♂294
0705 ♀383, ♂294
0710 ♂486, ♀269
0715 ?
0720 ?
0725 ?
0830 ?
0835 ♂486, ♀269, others dist.
0840 ?
0845 All but ♂294

0730 All separate
0735 "
0740 ♀269, ♂486 in nest
0745 All but ♀383
0750 " I
0755 Two pairs!

0800 ~~All~~ ?
0805 ?
0810 ?
0815 ♀269 + ♂486
0820 " others separate N
0825 " " N

Following: ♂486 following ♀269 ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

♂294 following ♀383 ||

Non-follows

~~||||~~

♂486 foll ♀383

with ♀269 |
w/o ♀269

♂294 foll ♀269

nonfollows |

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Road 1 Hastings Reservation

(20 April) 0742 ♀383 enters nest. 0751 head out 0752 leaves

0757 ♀269 enters 0800 head out 0803 leaves, followed by ♂486.

0804 ♀383 enters nest 0809 out 0810 down

0815 ♀269 arrives at nest, ♀383 leaves, ♀269 enters 0818 head out. 0829 leaves

0833 ♀383 enters 0837 leaves

0844 ♀269 enters ♀0845 ♀383 half enters, backs out, ♀383 + ♀269 fly off.

0845 giving up

22 April An interesting watch here, despite my suffering from frozen feet (cold and very wet). It looked to me that, as egg-laying wound down and incubation began in ernest, the well-marked pairs of the past two days began to break down. ♂486 initiated flights away from the ♀269, and even failed to follow her once or twice. He was also spending longer periods in the nest. Furthermore, ♀269 seemed especially conciliatory towards ♀294, open-wing wakaing to him on at least a few occassions. Certainly something to take data on in the next week or two. 0500 watch starts

0510 ♀ head out of roost hole flies off

Forget all that crap! Also should note that I saw ♀269 joining in crow mobbing with ♂294. I really need to get data on "pairing" in these guys, soon.

23 April 5hrs + of nest watching from the road on this rainy day. Talk about enthusiasm! 3 birds in the nest at once on some occassions

** → (weather related?). See compilation. Roosting, ♂486 Alone

22 April 1980 Road 1 (see page 3 of R1 notes)

0535 ♀269 ♂486
0540 " NI
0545 " I
0550 all but ♂294
0555 " NI
0600 " ?

0700 ♂486 ♀269
0705 ♂294 ♀383 (others sep)
0710 All 4
0715
0720 ♀269 ♂294 !
0725 All 4

0825 All 4
0830 All but ♀383
0835 ♀269, ♂486
0840 "
0845 All but ♂294

0900 End

0605 ♀269 ♂294; ♂486 ♀383
0610 ♀269 ♂486; ♂294 ♀383
0615 " " NI
0620 " ?
0625 All but ♂294
0630 " NI

0755 All 4
0800 ♀269 + ♂294; ♂486 ♀383
0805 " " I
0810 All but ♂486
0815 ♀269 ♂294; ♂486 ♀383
0820 All 4

♂486 initiates movements

" ♂486 not following ♀269

(♂486 in nest) "

	♂294	♀269	♀383
♂486	0	7	3
♂294		4	3
♀269			0

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Road 1 Hastings Reservation

25 April Start watch 0945. ♂486 in nest. A very interesting watch. The dramatic pairing of 5 days ago has broken down completely, and if anything, reverse pairs
* are prevalent. Very neat! See data on reverse. My qualitative impression of nest care, all but ♂294 seem to be doing a lot. ♂294 seems to be a "sentinel" in the granary. 3 times ♀383 came to the nest when ♀269 was in, and each time ♀383 left without entering. End 1245.

Back in the afternoon for a nest watch. A good one, but never saw ♂294. Interestingly, ♀383 never replaced ♀269. Twice 383 came to the nest with 269 inside, and both times 383 flew off. Only after ♂486 relieved ♀269 did ♀383 enter. It even seemed that ♀383 waited for those circumstances, then entered shortly after ♂486. Consequently, ♂486 had pretty short bouts.

→ Roosting here, and ♂486 roosted in the nest!

26 April With Steve + Melinda Pruett-Jones, a combination nest and group watch. Went pretty well, an intruder chase by ♂294. More "pairing" data gathered, and it is looking as random as I had hoped. See the compilation on the back of page 10.

At roosting, a switch! ♂486 entered the hole
→ early, then left. ♂294 entered moments later. So apparently ♂294 roosted in the nest alone)

27 April Watched the nest from the road for a short time in

25 April

0945 ♂486 | ♀383 |
0950 ♂486 |
0955 ♂486 ♀383 |
1000 ♂294 ♀269 | ♂486 | ♀383
1005 ♂294 | ♀383 | ♂486
1010 ♂486 ♀383 | ♂294

1015 ♀269 |
1020 ♂294 ♀383 | ♂486
1025 " ind | ♀269
1030 ♀269 | ♂486 | ♂294 |
1035 ♀269 ♀383 |
1040 ♂294 ♀269 | ♀383 | ♂486

1045 ♀383 |
1050 All but ♀383 (in nest)
1055 ♀269 ♀383 | ♂486 |
1100 ♂486 | ♀269 |
1105 ♀383 | ♀269 | ♂486
1110 ♀383 ♀269 |

1115 ♂486 |
1120 All separate
1125 ♂486 | ♀269 | ♂294
1130 ♂486 ♀383 | ♂294 | ♀269
1135 ♀269 ♀383 | ♂294 | ♂486 (n)
1140 all separate

1145 ♂486 ♂294 | ♀383 | ♀269
1150 All but ♀383.
1155 ♀383 ♂486 | ♀269 | ♂294
1200 ♀269 | ♂486 | ♂294 |
1205 ♀269 | ♂294
1210 ♂294 |

1215 ♂486 | ♂294
1220 ♀269 ♂294 | ♂486 |
1225 ♀383 ♂486 | ♂294 ♀269)
1230 ♂486 ♀383 NE | ♀269 |
1235 ♂294 ♀269 |
1240 ♂486 ♀269 |

		follows	non-follows
♂486 flies away from ♀269			
	IIII		IIII

		follows
♂294	♀269	
		I

	♂294	♀269	♀383
♂486	I	I	~~IIII~~ I
♂294		~~IIII~~	II
♀269			IIII

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Road 1

27 April the afternoon here. Pretty routine stuff, seeing all but ♂294 in the nest. Today, though ♀383 replaced ♀269 at least a few times.

Back here at roosting, and it was back to regular. Near dark, ♀269 was in when ♂294 came and entered. A few minutes later, ♂486 came, the other two birds left, and ♂486 roosted.

28 April A combination nest and group watch from PO hill, in between raindrops. A brief possible dominance interaction. The 2 ♀♀ were on the secondary sycamore granary alone, when I thought ♀269 gave a gentle peck to ♀383. ♂486 tended to disappear towards the end of the second watch. I hope he's OK.

29 April Roosting only tonight, and although I have a few doubts, I am pretty sure a saw metal, meaning ♂486 roosted

30 April A pretty routine nest watch here, with nothing much to write home about. I also gathered some more pairing data (below). (page 11)

Back at roosting, ♂486 was in as I arrived, then ♂294 entered. One left, and although I think it was ♂294 that left, I couldn't be sure

2 May At nest watch here, and the eggs have hatched! Birds bringing insects, and even ♂294 put in a brief appearance!

3 May Roosting here. I managed to fog up my scope at exactly the wrong moment, but I think it was ♂486 that roosted.

26 April 1980 Road 1. See page 3 0925-1105

5 All separate
10 ♂486 | ♀269 | ♀383
15 ♂486 ♀383 |
20 ♂486 ♂294 | ♀383 ♀269 |
25 ?
30 ♂486 ♂294 | ♀383 | ♀269 |
35 ♂486 ♀383 | ♂294 ♀269
40 ♂486 ♀383 (NI) |
45 ♂486 | ♀269 | ♀383 |
50 "
55 ?
60 ♀269 ♂294 | ♀383 | ♂486

5 ~~[illegible]~~ All but ♀383
10 ?
15 ?
20 ♂486 ♀269 |
25 All but ♀383
30 ?
35 ♂294 ♂486 |
40 ♂294 ♂486 (I) | ♀383 | ♀269
45 ♀383 ♂294 |

♂486 not follows ♀269

|

28 April 1980 Road 1 0745

5 ♀383 ♂486 | ♀269
10 ♂294 ♂486 | ♀269 ♀383
15 all separate
20 ♀383 ♂486 |
25 ♀383 ♂294 | ♂486 ♀269
30 ♀383 ♂486 | ♂294 | ♀269 |
35 ♂486 ♂294 | ♀269 | ♀383
40 ♀269 | ♀383 |
45 ♀383 ♂486 | ♀269 | ♂294
50 ♀383 ♂486 (NI) | ♀269 ♂294
55 " " (NI)
60.00 " " (NI)
5.00 " " (NI)
10.00 ?

[redacted]

♂486 follows ♀383 |

1130
5 ?
10 ?
15 ♂486 ♀269 | ♀383
20 ♂486 ♀383 |
25 ♂294 | ♀383 |
30 ♂294 ♀269 | ♀383 | ♂486
35 ♀383 ♂294 |
40 ♀269 ♂294 |
45 ♀269 ♂294 (NI) | ♀383 ♂486
50 " " (NI)
55 [illegible] | All but ♀269
60 All separate
5 ♀383 | ♀269
10 "
15 all sep.
20 ♀383 ♂294
25 All sep
30 ♀269 ♂294

Melanerpes formicivorus

Road 1

4 May Checking the nest with Walter, my first shot at going up the ladder. 4 babies, 4 unhatched eggs!
Back at roosting, could really tell nothing about who roosted.

5 May Routine nest watch

7 May " . A brief appearance by ♂294.

12 May " no sign of ♂294.

14 May " a short one!

16 May A pretty fantastic nest watch; nearly 100 visits in 2½ hours. Still no sign of ♂294.

20 May Short, dull nest watch

22 May Another short, but OK nest watch. Again ♂294 did not come to the nest, giving me cause for concern. However, I saw him (at least, a ♂ with his head pattern) hanging out in the granary

4 June A Swing by here at 1000, babies have not yet fledged. Correction Light-Dark / Light-Dark
at least one has! A Baby in the granary,
Plus at least one still in the nest, looking out.

8 June Start watch 1050. Both ♀♀ around, flycatching. A fledgling in the VO near the 2° Sycamore granary.
1150, Both ♀♀ have made some quick trips to the nesthole + roost hole above, seemingly to check them out. Perhaps they are thinking seriously about renesting. NO packing behavior, yet. Perhaps soon.

10 June 0740 from PO Hill. Nobody around at the moment. 0840, No interest whatsoever in the nest tree. Birds mostly flying around granary area. 2 babies seen.

30 April 1980 Road 1 See page 3

0700 - 1000
(0600) - (0900)

(1)

5 ♂294 |
10 ?
15 ♂486 ♀269 | ♀383
20 ♀383
25 "
30 ♀383 | ♂294
35 ?
40 ?
45 All but ♀269 (nest)
50 ?
55 ♂294 ♀269 | ♀383 ♂486 |
60 ?

(2)

5 ♀383 | ♂294
10 All but ♀383 (nest)
15 ?
20 ?
25 ♀269 ♂294 |
30 " | ?
35 ♀269 ♀383 |
40 ♂486 ♀269 |
45 ?
50 ♀269 ♂294 |
55 ♀383 ♀269
60 ♀269 ♂294

(3)

5 ♀269 ♀383 |
10 ?
15 All 4
20 ?
25 ♂294 ♀269 |
30 ♂486 ♀269 |
35 All sep
40 "
45 ?
50 All sep
55 ♂486 ♀269 | ♀383 ♂294 |
60 all sep

Fail to follow ♂486 + ♀269 |

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Road 1

12 June Start watch 1030. All 4 babies seen (couldn't see wands of anybody, but 4 juvs in the granary at one time. Still no interest in any holes, although I saw a ♀ looking out of the nest hole around roosting time. Perhaps an early roost in response to lousy weather.

14 June Start watch from hide at granary 0815 ♀383 + ♀269 here, ♀383 eats acorn 0851 Dom. at a hole, J580 Metal / Black
J Dom.* nails J578 Yellow / Wt-L Green. J579 Or / Or also here,
3 and I think I got a quick look at J577, too. 0919, another
* dom, J580 pecks J579! 0930, J577 BPink-Blk / M definitely here, a complete census! Will try for more Juv. dominance. 1115, Nothing else, but a lot of Flycatching + foraging data.

20 June Start 0845, calls from above the granary. 0930, J578 Yellow / Wht-L Green pecks J579 sharply! Also a mild (perhaps none) interaction suggesting J577 >> J579. J579 Turned away conspicuously when 579 BPink-Blk / metal
2½ approached. In sum so far, [illegible]
[illegible] definite [illegible]
J580 dominates J578 + J579; J578 dominates J579. J579 subordinate to all. J577 dominate J579
1000, J580 M / Blk pecks J578, while latter working acorn. Later same interaction at a hole in a Valley Oak below the 2° granary. 1110 Excellente! J577 BPink-Blk / M pecks J580 metal Black, then J579. Right after that, (or right before), J580 nails J579 also! Assuming linearity, that means I have a complete dominance table.

577 578 s.

577

578

579

580

Sub

dominant	J577	J578	J579	J580	J?
J577		1111	111	1111 1	
J578			1		
J579					
J580		1111	1		
J?					

577 > 580 > 578 > 579 ?

14 - 25 June 12 July 14 hours

Through 7 June 1780

dom	577	580	578	579
577	-	7	4	3
580	0	-	5	1
578	0	0	-	1
579	0	0	0	-

Sub

	580	578	579
577	1 1111	1111	111
580		1111	1
578			1

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Road 1 — Hastings Reservation

22 June — Start watch 0900. 0913, faint interaction, J580 light peck at
3½ J578 who fared away. ♀383 nearby, 1220 end, very
boring.

23 June — Start 1515. 1600, good interaction, 577 B Pink/metal
nails J580. m/B Black. ♀ feeding. Good!
1½ Repeated a few minutes later, very mildly, though.
End 1645.

24 June — Start watch 1020. Quick interaction, J580 pecks J578.
♀ feeding. Noon, Good dominance as J577 twice nails
2½ J580, once nails J579, while being fed.
End 1240.

25 June — Start watch 1100. Good luck, right away I see J577
peck J580 and J578, all together on branch!
Wow, 1110, 3 more good J577 pecking J578!
excellent!

12 July — Start 1615. By 1630, all 4 Susies + ♀269 seen.
1632, ♀383 + ♂486 also seen. 1650, another J577
pecks J580, alone in top of sycamore 1700, ♂294
here, completes census. End 1715

22 Aug — Lots of Finch birds intruding (see Finch notes). also, ♀
539 from Rd 3 supplanted by ♀383.

These guys lost their 1980 nest sycamore to the fire, plus a few storage holes in it and a few other sycamores. At any rate, Road 1, like Finch and Road 3 is out of stores now. Watching at 1145. ♀383 + ♂294 seen earlier. 1200, J578, looking like a ♀! That would be nice. End 1230, not much happening

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Road 1 — Hastings Reservation

25 Aug — Start 0830. J577 here, looks like a ♂. So does J580. ♀579, ♀383, ♀269, ♂486 also accounted for. Need to see J579 (I predict ♀) before census complete. ♀383 harvest a green Q. kellogii acorn.

→ Alarm call given at 0915 by ♀383. Didn't seen anything, but presume coopers Hawk. 0925, J579 shows up, in ♂ plumage Sehr Gut! End watch 0945.

1000 at Valhalla, a possible ♀ (?) intruder, D Blue-wht (N) / Orange Metal, So close to ♀269 that I thought it her at first. May still be, but this bird was chased by J580, or so it appeared, anyway. Now I'm not positive I've seen ♀269. ♂294 BPink / DBlue - Yellow here without doubt, though. Metal / BBlue - Yellow (N) / Orange / " " , looks like the intruder, a juvenile ♀ I believe. I am confused checking around Valhalla, anyway. Could be warp 5 baby ♀? DBlue wht (N) / white. Have to check. 1015, confirm ♀269

Complete census. Footnote intruder is ♂626 from Gate

17 Sept — While watching at Finch, I sneak looks this way now & again and manage to pull off a complete census! 4 adults, 4 first year birds, all seen quite well.

1 Oct — Just a check of the granary reveals that these guys have not started storing yet.

10 Nov — Start 1300. A lot of acorns stored here, but not a great deal of action in the granary. Birds always in 2° sycamore granary. My presence w/o blind may be a problem. Worried about ♂486, ♂579, ♂580, not seen. ♀383, ♀269, ♂294, ♂577, ♀578 all seen well, at least a few times each. End 1410.

10 Nov 1980

Storage 1300 - 1410

♀269 || (2)

♀383 ~~||||~~ (5)

♂486

♂294

♂577 || (2)

granary census (includes 2° granary)

1300 ♀269 1°

1305 ♀269 ♀383 2°

1310 ♀269 1°

1315 ♀269 1°

1320 ♂577 ♀383 2°

1325 ♂294 2°

1330 ♀383 ♀578 ♂577 ♂294 2°

1335 ♀578 2°

1340 ♂577 2°

1345 ♀383 2°

1350 nobody

1355 ♀269 2°

1400 ♀269 ♀383 2°

1405 ♀269 2°

1410 ♀269 2°

1980 R.L. Mumme

Melanerpes formicivorus

Road 1

14 Nov Start 0930 Lots of storing today, and a solid, complete census, though I was worried about ♂486 (didn't see him the entire first hour) Storing + granary census data on reverse. As expected, ♀♀269 + 383 were the workhorses. End 1130.

17 Nov Start 1115 Storage + granary attendance data on back. complete census here, but a pretty low key day. ♂486 again very scarce. I've notice ♀269 has the habit of opening acorns + storing the cotyledons separately. End 1315

storage 14 Nov 1980 0930 – 1130

♂579	♀383	♀269	♂577	♀578	♂580	♂486	♂294
8	14	13	5	5	3	2	3

granary census

0930 ♂579
0935 ♂577
0940 ♂579 ♀383
0945 ♀269 ♀578
0950 " " ind.
0955 ♀383
1000 ♂577 ♂579
1005 ♀383 ♀269
1010 ♀269
1015 ♂579
1020 ♀383 ♂486 ♂294 ♂579
1025 ♂579 ♀269
1030 ♀269
1035 ♂579 plus another
1040 ♀269 ♀383
1045 ♀269
1050 ♂579 ♂294
1055 ♂579
1100 nobody
1105 nobody
1110 ♀383 ♂580
1115 ♀383 ♀269
1120 ♂294 ♂579
1125 ♀383 ♂580
1130 ♂580 + 1 bird

---

storage 17 Nov 1980 1115 – 1315

♂579	♀383	♀269	♂577	♀578	♂580	♂486	♂294
4	7	5					

granary census

1115 nobody
1120 nobody
1125 ♀383
1130 ♀269
1135 ♀383
1140 ♀269 ♀383
1145 ♀383 ♀269
1150 ♂294 ♀269
1155 ♂579
1200 ♀269 ♀383
1205 ♀383
1210 ♂579 ♀383
1215 ♀269 ♂579
1220 nobody
1225 nobody
1230 ♂294 ♀269
1235 ♂294
1240 ♀383
1245 ♀383 ♂579 ♀269
1250 " " "
1255 ♀383 ♀269
1300 ♀269 ♂294
1305 ♀269 ♂294 ♂579
1310 " " "
1315 ♀269

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Melanerpes formicivorus

Finch — Hastings Reservation

31 March Cruising by at 1700. ♂501 seen eating oak buds (F)
♂501 Yellow / metal. ♂66 Red / L Blue-White. ♂282
Tan-Red / Tan-Red. Plus a ♀ end 1730

16 April Walter checks the nest here in the Road sycamore,
6 eggs!! Holy cow! A problem with the 1st year ♀,
(1) 26.2 x 20.0 mm but pretty neat with this big
(2) 26.6 x 20.1 mm food year.
(3) 27.0 x 20.0 mm
(4) 26.6 x 20.4 mm
(5) 26.1 x 19.1 mm
(6) 26.6 x 19.4 mm

18 April These birds are apparently still harvesting agrifolia acorns, from PO Hill (north side). See Road 1 notes.
Checked the nest here later, still 6 eggs.

28 May Swinging by on a hole check, I see the 2 1st year birds (♀500 + ♂501) and one of the fledglings, J541 Blk-Yellow / Mauve.
Nobody in holes.

1 June Checked holes, nothing!

2 June A ♀ looking out of this years nest! Could it be?
Yes! Back at 14.30, 5 eggs
Hole measurements.
diam. nest height 25 cm:
229° SW: -24° angle
9.60 meters high.

(1) 27.5 x 20.9 mm
(2) 26.9 x 20.6
(3) 27.2 x 20.8
(4) 27.2 x 20.6
(5) 27.8 x 20.2

12 June Start watch 0800. At least 3 fledglings around, but
J541 Black-Yellow / Mauve. the only one I see well. Fleeting
looks at others suggest 542 + 543. 0830, I hear

Melanerpes formicivorus

Finch

(12 June) a juvenile calling from PO hill sap tree, a Live Oak (of course) riddled with sap holes. Very little sap flowing at the moment (cool + overcast), and << 5% of the wells were wet. The sap tree is sparsely foliaged, straight up the little draw that comes up the road in between Finch and Road 3.

18 June 4 babies at 1830.
#1 Yellow-Black 33.1 g
#2 L Pink-D Blue 30.8 g
#3 Orange-L Blue 36.2 g
#4 NB 21.0 g

20 June, a quick pass, ♂501 feeding Juv 542, with aggression dominance!

21 June Start watch 0900 ♂501 feeds J541! 0920, Dominance!
J Dom→ J543 DGreen/DBlue " " was really dishing it out to I believe J540 DGreen/LPink! 0945, ♀500 chases J542 from granary. Not very nice! 0950, J543 pecks
J Dom→ J541 hard twice, ♂ nearby!! Repeated once more 1110, ♀500 chases J542 out of granary again. By granary, I mean the VO granary on the downstream side of the bridge. End 1100. A complete consus, save for ♂63.
J dom→ On the way down I get ♂63, plus juv. 542 dominating 2 different juveniles, neither of which I saw the hands of.

24 June Start 0800. 0825, ♀500 harvests a green acorn! How about that, a little incipient nub of a Valley Oak acorn. 0900, Cooper's Hawk, ♀293 plus others give alarm calls. 0930, ♀500 chases Juv 542 from old nest tree (sycamore) granary twice. Hard pecks, grappling, etc. However, B/K-Tail

Melanerpes formicivorus

Finch

(24 June) Mawe (J541) arrives, and ♀500 actually feeds him! Very interesting. Why the antipathy towards J542. Looks like J541 & J542, the latter looked pretty subordinate when together. Very iffy, however.

22 July Stortwatch 0745. Big flycatching frenzy on ARF slope, in the early morning sun. 0815, ♂282 feeds Juv 616. DGreen/DBlue
0905, I think I see J543 peck and displace
J Dom → J541 Black-Yellow/Mauve, while being fed by ♂163
0920, all adults, plus J540, 541, 543, 614, 616 all seen up on side of ARF. 0933, I see J540 M/" DGrn/LPink jab at somebody (?), but sat next to J542 LBlue-Or/LBlue was not hassled. 1003, J542 really looks like he's molted into ad ♂ plumage. Not sure, but head looked quite red, good yellow eye, glossy black plumage. Maybe so. 1020, J613 Red-DBlue/Red completes census, meaning ♀293 + J615 are the ones that met their demise recently. No sign of Revolution activity, either. 1030, yet another
→ case of J543 dominating J541. J541 working acorn (?), displaced by J543 with a few mild pecks.

1315, J614 pecked out of UO granary by ♀500 (or ♂501, wasn't sure which.

29 July 0830 -- A perfect series among the new juvs! J616 begging from adult, Juv 614 arrives and pecks him away, only
J Dom to have J613 peck J614 in turn! Very good. Couldn't ask for more. 1000, J614 really gives way to Juv. 542, not surprisingly, J542 may have given him a gentle peck, too. Earlier, a NB ♀ (?) around,

J543	>> J541	IIII
J543	> J540 (?)	I
J542	>> at least 2 others	
613	> 614	I
614	> 616	I
542	> 614	I
541	> 614	I
541	> 616	II
543	> 616	I

Melanerpes formicivorus

Finch

(29 July) garrickting occasionally. Chased by ♀506 over. 1030, complete census except for ♂501

30 July Start 0820. ♂501 is the 1st bird I see, so that completes census. 0900, a flurry of dominance. J541 pecks both J616 (2 times) + J614! I also saw 616 pecked by either J543 or 613, wasn't sure which. 0905, I think it was J543. J543 sapsucking from Live Oak next to the "parking lot" 0925, a good case of J613 pecking at J616 while being fed by ♂282, wrapping it up for the youngsters. 0940, 2 more cases of J614 pecking at J616 (fed by ♂66), at 0915, ♀500 really jumped on J613 as it flew to the granary. 1030 end.

31 July Start 0830. 0850, Interesting, ♂501 was pecking hell out of J616, trying to drive him out of the nest tree granary, and then ♂282 gave ♂501 a sharp peck! Very interesting. 0900, a very vicious interaction between J613 + 616. Locked bills, tumbled a few feet in the nest tree. A tough fight, but J613 clearly came out on top. Then 2 cases of 614 >> 616, and then, J541 came along to peck away both J616 + J614. On top of all that, ♂66 gave ♂501 a sharp peck, too. End 0930.

Ad → Dom!

J Dom

AD Dom

1 Aug Once more at 0800. ♂66 seems to be garrickting occasionally. ♂282 chases out a ♂NB. That's about all.

22 Aug Start watch 0830. J541 is a ♀! Good ol' Black Yellow Mauve. J543 is also a ♀! While J540

Tentative

30 July

Sub

dom	543	542	541	540	613	614	615
543	—		IIII	I			I
542		—				I	
541			—			II	II
540				—			
613					—	III	II
614						—	III
615							—

Melanerpes formicivorus

Finch

22 Aug looks like a fairly solid ♂♂. Some sapsucking in the live oak overhanging the parking lot. All the 2nd brood babies here, also ♀500 & ♂501, ♂63, and I think ♂282. Cooper's Hawk

0850, strange development. All the Finch birds fly over and land in the Road 1 granary, making me worry if the Rd 1 members had all perished when the nest-roost tree fell during the fire. I do see ♀383 at the Rd 1 granary, and some chasing. Bears investigation

Still no new ♀ here yet. Also no sign of Juv 542 at the moment. Also, a fire casualty was the top of the sycamore (NE of creek) that had some storage holes and the nest holes of earlier years. Don't really understand how it could have fallen, as the tree was not really damaged. I suspect it may have fallen before the fire. This interpretation supported by the fact that there is no trace of the stub on the ground, suggesting it was already on the ground when the fire came through.

17 Sept Watching here 0830. Pretty good census, seeing ♂63, ♂66, ♂282, ♀500, ♂501, ♀541, ♀543, J613, and J614. All seen well. ♂♂540 + 542 and J616 the only ones I missed, but I suspect they're still around. Still no new ♀ here.

10 Oct Here at 0945, No storas yet. ♂63, ♂66, ♂282, ♀500, J613 & J614 all seen. No new ♀ yet. Later, ♂501, ♀541, ♂540 r/L pink and I think ♀543 p/green/Blue all here Also ♂5~~42~~ ~~L blue or/L blu~~

Tentative

30 July

Sub

dom	543	542	541	540	613	614	615
543	—		IIII	I			I
542		—				I	
541			—			II	II
540				—			
613					—	III	II
614						—	III
615							—

Melanerpes formicivorus

Finch

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17 Sept Watching here 0830. Pretty good census, seeing ♂63, ♂66, ♂282, ♀500, ♂501, ♀541, ♀543, J613, and J614. All seen well. ♂♂540 + 542 and J616 the only ones I missed, but I suspect they're still around. Still no new ♀ here.

10 Oct Here at 0945, No storers yet. ♂63, ♂66, ♂282, ♀500, J613 + J614 all seen. No new ♀ yet. Later, ♂501, ♀541, ♂540 m/L pink and I think ♀543 p/green/Blue all here. Also ♂5[illegible] L blue/L Blue

Melanerpes formicivorus

Finch

10 Nov Start 1130 Excellent census including J613 (Red - DBlue / Red) in solid ♂ plumage, J614 (DGreen - BPink (N) / Yellow - DPink / Yellow - DPink) in solid ♀ plumage, and even good old J616, not seen since late August, here in what looks like ♂♂ plumage. Great! In fact, the only bird not seen by 1240 is ♂501. Still no new ♀. Birds really storing like crazy. Couldn't get data but I do know that (1) None of the 2nd brood individuals took part (2) ♂66 + ♀500 looked particularly active in storing, ♂63, ♂282, ♀541, ♂542, ♂540, ♀543 Showing less enthusiasm. 1250, Finally, ♂500 (yellow/metal) shows his face. Complete census, end 1255.

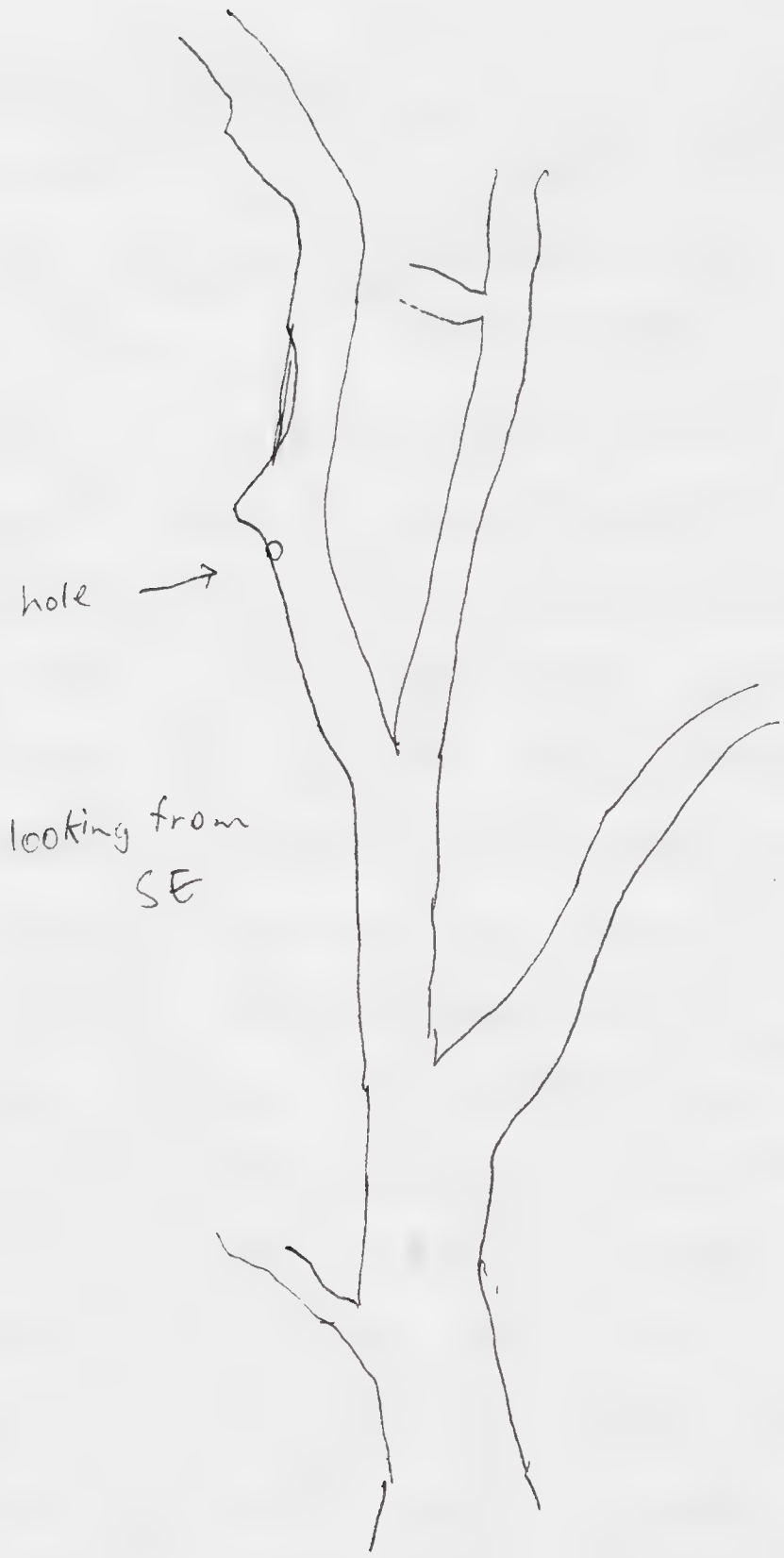
1980 Ronald L. Mumme

Melanerpes formicivorus

Road 3 — Hastings Reservation

31 March Start watch 1530 1540, ♀265 (DBlue/Yell–LBlue) shows up, eats acorn (F). She is alone, unattended by ♂♂. No "pack" behavior yet. 1550, ♂68 (DBlue/DBlue) also eats acorn (F). ♂184 white-Blk/Blk-white also shows. Weather rotten + deteriorating (cloudy, breezy, everybody sitting tight. ♂184 also eats acorn (F). 1605, everybody huddling on lee side of granary (Valley Oak). 1615, ♂♂ fly off ♀ stays put. No packing, yet 1645, ♀ still hasn't moved, ♂♂ have moved away and back a couple times.

7 April Start 0925, 3 birds in granary as I arrive, all flush. moments later, ♂68 (DBlue/DBlue) returns, the leaves. 0955, ♀265 (DBlue/Yellow LBlue) + ♂68 arrive together, she enters last year's nest hole, goes down! 1000, ♂184 at hole, leaves, ♀265 leaves, ♂68 arrives, goes down! (see drawing on back). 1012, ♂68 leaves, ♂184 looks in, flies off, (after ♂68 had left). 1014, ♂184 goes down (I think!) (for sure!). Both ♀265 + ♂68 eat acorns while ♂184 down (F)(F). 1032, ♂184 comes out, sits outside nest 1038 back in, 1043 out. 1047, ♀265 enters, down. 1050, ♂184 chases Dove, goes to nest hole. 1053, ♂68 flies to nest, ♂184 chatters then moves up and away. ♂68 now alone, 1055, ♂68 flies off. 1101, ♂68 enters briefly, leave, ♀265 still there. 1103, ♂184 lands briefly, ♀265 leaves. 1113 ♀265 flies well off, followed 1st by ♂184, then ♂68. End 1120. Back at 1500, nest empty! False alarm, I peeped in and saw nothing


hole
looking from
SE

Melanerpes formicivorus

Road 3 Hastings Reservation

9 April 2 birds in granary and one in nest hole as I arrive. 0715 ♀265 eats acorn (F). ♂184 enters nest 0723. 0733, ♂184 leaves, → ** flies to sycamore next to ♂68, ♂68 chatters this → time!! ♂68 then enters nest. 0738, ♂68 leaves, 0742 ♀265 enters, (could there have been a cloacal bulge?) 0744, ♂186 enters, then she leaves. 0800, cooper's hawk. ** 0805 ♂68 flies to nest, both chatter, although ♂68 does more. ♂184 leaves, ♂68 does not enter 0809, ** ♀ flies to ♂184, ♂68 joins, chattering like mad, ♂184 chatters a little, but not much. 0811, ♂68 in nest. → ** 0820, ♂68 leaves, flies to ♂184, ♂184 chatters this time (Bird approached chatters?) ♀265 enters. Out at 0830 (outside hole) back down at 0838. 0850, ♂68 arrives. She leaves, he enters. End 0900.

Back at 1630, and I feel like an idiot! This time I looked in and saw 5 frigging eggs. How could I have missed it on Monday!? Geez! At any rate, the birds have apparently deepened the cavity since last spring, because I could not reach the eggs. Anyway, the 1980 nesting season has begun, a record early start.

10 April 5 eggs
(1) 25.3 x 20.0 mm
(2) 25.4 x 20.3 mm
(3) 26.2 x 20.2 mm
(4) 24.9 x 20.1 mm
(5) 24.2 x 19.6 mm

17 April
→ ** ♂184 roosted

Melanerpes formicivorus

Road 3

27 May Up on PO hill above R3 I find the fledged babies! (at least J539 Metal / white, sapsucking from a live oak up here! How about that! At least one other fledgling around, too. Also, ♀265 sapsucking here. 1420, All 3 babies here, OK! Call sapsucking, too! Even a quick dom. interaction, as I think J538 pecked at J537. Was not sure, however! No sign of any interest in '78 nest hole.

JD Blue-wht (N) / "

JD*

28 May Drive by here + stop at 1330. Lo + Behold, 2 birds (adults) in the 1980 nest hole, with another outside looking in! We could have something here.

Back at 1800 to check in the hole. I peep into both the 79-80 hole and the 1978 hole, but no eggies. Perhaps, soon.

30 May Start watch 0800. Plenty of action in ~~last~~ 1st nest (1980) hole. ♂68 in with a juvenile, ♂184 being very attentive. ♀265 not out, perhaps in hole. A very foggy morning, but these guys should have a nest.

0812. Cute, ♂184 comes to nest with an acorn bit, feeds the juvenile looking out. 0814, yes, ♀265 is indeed in the hole! ♂68 so far seems to be spending his time in the hole with her.

68 feeds 53d acorns 0838, everybody here together since 0800, a good 2♂♂ follow of ♀265, as they fly toward the sap tree (Live Oak) on PO Hill

0843, a 2♂♂ follow of ♀265, although ♂86 delayed. then another good follow as they return to sap area.

0908, ♂184 leaves to feed babies on PO Hill, he returns moments later with J539.

both ♂♂ follow ♀265 ~~IIII~~ ~~IIII~~ ~~IIII~~

fail to follow

flies away from ♀

♂184 ||||

♂68

30 May 1980 Road 3

0800 ♂♂ ♀265 J539 | NI
0805 " " "
⋮ " " "
0835 " " NI
0840 ?
0845 core 3 gran area |
0850 core 3 nest | I
0855 core 3 gran | I
0900 core 3 nest | I
0905 core 3 " | NI
0910 core 3 J539 ~~flew~~ nest | I
0915 ?
0920 core 3 J 539 nest | I
0925 ?
0930 core 3 Nest | I
0935 core 3 gran | I
0940 core 3 nest area | I
0945 " NI
0950 core 3 J 537 | I
0955 ?
1000 ?
⋮

J 537 follows core ||

J 539 follows core |

Feeds	J?	537	538	539
♂184				
♂68				
♀265			‖	

1125 core 3 nest |
1130 J537 gran |
1135 ?
1140 ?
1145 core 3 J 539 | nt
1150 core 3 J 539 NT | NI
1155 core 3 NT | I
1200 J 538 nt |
1205 ?
1210 core 3 |
1215 core 3 2 Juvs |
1220 J 537 |
1225 core 3 J537 |
1230 ?
1235 ?
1240 core 3 nest |
1245 core 3 nest | I
1250 core 3 nest | NI
1255 ♂68 ♀265 | ♂184 | (♂184 upstream sap tree) | -184
1300 core 3 gran | I
1305 ?
1310 ?
1315 ?
1320 core 3 nest area |
1325 " NI

1330 core 3 nest area | I
1335 ?
1340 ?

34 points core 3 together

~~[illegible]~~ ♂184 separate from ♂68 ♀265

1980 R. L. Mumme

Melanerpes formicivorus

Road 3

(30 May) 0925, ♀265 in nest, ♂184 looking in, ♂68 flies to nest, ♂68 chatters to ♂184! 1000, going to bag it. Will come back & check hole.

#1 Back at 1030. I must be living right! One egg in the nest, I marked #1 and returned. It was probably laid this morning, although I suppose it could have been laid yesterday.

Watching group again at 1015. 1215, J537 or/metal actually, goes into nest hole (for a few minutes). 1242, ♀265 in, ♂184 at hole, ♂68 flies to hole, chatters to ♂184, both enter.

1328, ♂68 at nest, ♀265 in, ♂184 flies to nest, both ♂♂ chatter! End 1340.

31 May Start 0535 from truck (0435). Core 3 emerge from roost hole next 0546. ♂♂ follow ♀ out. 0556, ♀265 enters, ♂184 looks in, he flies off, ♂68 enters. Both leave 0558.

J Dom! J538 pecked nastily by J537. 0620, ♀265 enters nest. leaves 0625. ♂184 in with her for awhile.

0639 ♀265 enters nest, leaves 0640.

0655 " " " ♂68 enters briefly, both leave 0658

0718 " " " 0730, ♂68 at nest, ♂184 flies to nest, ♂68 chatters for sure, and I think ♂184 did too. Both then enter, ♂184 first. ♀265 head out. 0733 leaves (all)

0755 ♀265 enters. 0758 ♂184 enters 0803 ♂184 leaves 0805 ♂68 at nest, ♂184 flies + enters, both ♂♂ chatter, but most by ♂68!

0810 ♂68 enters 0813 he leave. 0817 ♂184 leaves

End 0900

31 May 1980 Road 3 0635-0900

both ♂♂ follow ♀265 ~~IIII~~ ~~IIII~~ ~~IIII~~ |
184 alone
68 alone

fail to follow
184
68

Flies away from ♀265
♂184
♂68 |

feeds	J?	537	538	539
♂184			II	~~II~~
♂68			I	
♀265	I	a		

0640 -
0645 - } Roost hole
0650 core 3
0655 core 3 J 537 |
0600 core 3 2 Juvs |
0605 all 6
0610 all 6 2nd
0615 nobody
0620 core 3 538 539 |
0625 core 3 6 |
0630 core 3 J |
0635 nobody |
0640 core 3 nT |
0645 core 3 J538 gra |
0650 nobody
0655 ♀265 ♂68 Juv | nest
0700 core 3 g |
0705 nobody
0710 "
0715 "
0720 core 3 n |
0725 core 3 n | NE
0730 core 3 n | NE
0735 core 3 n | I
0740 core 3 g | NE
0745 nobody
0750 "
0755 core 3 J 538 n |
0800 ♂184 ♀265 n ♂68 nt J 538 nt |
0805 core 3 nt |
0810 core 3 in nest
0815 core 3 nest area | NE
0820 " | NI
0825 "
0830 "
0835 core 3 J537 |
0840 core 3 Juv | Nt
0845 core 3 Juv 539 |
0850 core 3 Juv 537 539 |
0855 " NE
0900 nobody

1940 nobody
1945 "
1950 "
1955 "
2000 "
2005 "
1910 "
1815 core 3 in nest
1820 core 3 nestarea |
1825 " ind
1830

1855 core 3 |
1900 1 juv |
1905 nobody
1910 nobody
1915 "
1920 "
1925 "
1936 "
1935 core 3 Juv 538 Juv 53? | nesta-

34 sampling points core 3 together
only 1 not, ♂184 separate

Melanerpes formicivorus

Road 3

(31 May) Back at 1800 to check the nest. Surprisingly, they did not lay today! Still the one marked egg.

Watching at 1850. They are still interested in the hole, ♀265 in as I arrive. I guess they just skipped a day.

1 June Start watch 0545 (0445). Core emerges from roost hole at 0552.

0642, ♀265(?) enters nest. 0646, she leaves, a juv. enters

*⊙ 0707. Juv. Dom. J 539 metal/white nails J 588 on the noggin.

0739 ? enters nest, leaves quickly. At 0736, ♂184 had done the same. I wonder if these guys have abandoned? Another one-egg false start?

~0810 ♀265 entered (?), then ♂ by, J537. 0822, ♀265 leaves.

* Juv. dom 0825, J537 pecks J539! again, moments later.

~0840 ♀265 may have entered nest again. 0843, ♂184 at nest, ♂68 flies to nest, both chatter. ♀265 leaves 0843.

0846 ♀265 enters again 0851, ♂68 enters, ♂184 may also be in. 0903, nope, ♂184 was in the VO granary. 0909, ♀ leaves

0940, ♀265 enters nest only briefly

0950, Juv 539 pecks Juv 538!

End 1000. Going to check nest!

Goddamnit! 2 eggs, but I manage to break the fresh one, and I don't even know how I did it. Shit. I peeped in, saw 2 eggs, reached in, pulled out egg #1, then went back, and the new one broken! Perhaps I knocked it as I pulled out #1. Seemed awfully thin shelled. Pisser!

1 June 1980 Road 3

♂♂ follow ♀265

both ~~||||~~ ~~||||~~

♂184 ||

♂68

fail to follow

both

♂184

♂68 ||

flights away from ♀265

♂184 ||

♂68 |

feeds	J?	J538	J538	J539
♂184		1	|||	1
♂68	1	1		
♀265	||			

0555 core 3, 1 Juv | gran
0600 nobody
0605 "
0610 "
0615 "
0620 core 3 juv 538 juv ? nest tree | NI
0625 "
0630 Juv ? gran |
0635 " NI
0640 core 3 J 539 J537 | nest area
0645 " | NI
0650 " NI
0655 2 Juvs gran |
0700 nobody
0705 core 3 J538 | nt
0710 "
0715 core 3 gran |
0720 " NI
0725 " "
0730 " "
0735 core 3 nestard Ind
0740 core 3 juv | nestarea
0745 nobody
0750 "
0755 "
0800 "
0805 core 3 juv ? | na
0810 core 3 juv 537 539 | nestarea
0815 " I
0820 " NI
0825 " NI
0830 ?
0835 ?
0840 ?
0845 core 3 juv 538 |
0850 " | NI
0855 ?
0900 ~~core 3 in nest ?, J538 nearby ?~~ |
0905 core 3 juv 538 | NI
0910 " I
0915 nobody
0920 "
0925 "
0930 core 3, Juv ? |
0935 nobody
0940 core 3 nest area |

0945 core 3 J537 | nest area
0950 " " NI
0955 "
1000 ♀265 Juv 538 + 539 |
1005 J537 |

27 core 3 together
1 ♀265 separate from males

Melanerpes formicivorus

Road 3

(1 June) Back for roosting, the same as last night (which I forgot to put in notes). ♀265 roosted early, then the two ♂♂ flew around, pre-roost mounting with each other. Very late I saw a bird slip into the nest hole, and head shape suggested ♀265 or one of the fledglings, certainly not either of the ♂♂.

2 June Back watching group on 2 June 0802 ♀265 enters nest 0816 leaves, ♂68 enters 0838, ♂68 at nest, ♂184 approaches, ♂68 chatters. Pairing really breaking down. ♂♂ not following ♀265, flying away from her, etc.

Walter + I check nest at 1430, another fresh egg, laid this morning, and I manage to mark it #3 without breaking it.

Watching again at 1800. Nothing happening at roosting, also nothing much happened. The ♀265 roosted early, as did one of the ♂♂, while the other ♂ flew around quite a bit until late, then roosted in the nest hole (I think)

3 June Trying again at 0803. Association data on back page 7. Holy Cow! at 0841.30, a House Wren flies to the nest, looks in, and ♂184, in the nest, apparently grabs the wren by the head and starts tugging and pulling. The wren struggles, but can't seem to get away. Finally it is pulled completely into the hole at 0842. It remains in there until about 0842.30, when it finally gets out (or thrown out?) by ♂184, who heads out with his bill covered with feathers. The wren manages to fly weakly away. Wow! ♂184 headed out, left at 0847.

* Don → 0857 ♀265 enters nest, looking "eggie". 0908 For the second time today, ♂68 has chattered vigorously when

2 June 1980 Road 3

both ♂♂ follow ♀ |

♂ 184 alone

♂ 68 alone ||||

both fail to follow ♀ ||

♂ 184 alone ||

♂ 68 alone |

flights away from ♀265

♂ 184 ~~||||~~ |||

♂ 68 ~~||||~~ ||

feeds	U?	J537	J538	J539
♂184			1	
♂68	1			
♀265		1		1

0745 nobody
0750 nobody
0755 nobody
0800 core 3 nt |
0805 ♀265 ♂68 | ♂184
0810 ~~[illegible]~~ ♂184 ♀265 nt | ♂68
0815 ♀265 ♂68 |
0820 " NI
0825 " NI
0830 core 3 juv
0835 2 ♂♂ juv | ♀265
0840 ♂184 J538 J537 | ♀265 ♂68
0845 core 3 J538 J537 | nt
0850 ?
0855 ♂68 nt | ♂184 ~~[illegible]~~ juv Arnold
0900 ♀265 J 538 nt

0905 ♀265 ♂68 | ♂184
0910 ♀265 ♂68 | ♂184 juv Ind
0915 ♀265 in nest | ♂184 : ♂68
0920 ♀265 nest ♂68 nt | ♂184

0925 " NI
0930 ♂184 ♀265 | ♂68 |
0935 ♀265 nt | ♂184 | ♂68 |
0940 ♀265 nest ♂184 nt | ♂68 elsewhere
0945 ♀265 | ~~[illegible]~~ ♂184 | ♂68 |
⋮

1800 nobody
605 "
610 "
615 "
620 ♀265 nest |
625 " NI
630 " NI
635 " NI
640 " NI
645 " NI
650 core 3 2 juvs nest area |
655 babies nest area
700 "

705 babies nest area Nt
710 " "
715 " "
720 " "
725 ♂184 nest 3 juvs |
730 ♂184 nest 3 juvs | NI
735 " " | NI
740 core 3 |
745 ♀265 ♂184 nest | ♂68
750 "
755 core 3
800 core 3 2 juvs nt |
805 " NI
810 ♂184 + babies nt | ♀265 ♂86 Pohill
815 " " NI
820

Melanerpes formicivorus

Road 3

(3 June) ♂'184 approached; Both times ♂'184 flew in from outside the nest area, landing about 2-4 meters away from ♂'68. Rather peculiar.

Checked the nest at 1030 + 1830. Still 2 eggs. They did not lay today, and they look like they are incubating

4 June Start 0745 ♀'65 alone, in nest. 0903, ♂'68 flies in chattering, while somebody (♂'184?) in nest. ♂'68 landed top of nest tree, chattered.

Back at 1400 to check the nest, another fresh egg (marked #4), laid this morning, I presume. Clutch may now be complete with 4 eggs (though only 3 remain)

8 June Checked nest at 1000, still only 3 eggs, #1, 3 + 4.

Measurements

#1	laid 30 May		25.1 x 19.8 mm
#2	broken, unknown	laid 1 June	
#3	laid 2 June		24.8 x 20.2 mm
#4	laid 4 June		26.5 x 20.7 mm

9 June Roosting here, with something a little different. ♂'68 + ♂'184 Both roosted, ♂'68 entering about 0848, ♂'184 following a few minutes later.

11 June Nest check at 1530. Egg #3 (laid 2 June) has a very small pip in it. Eggs #1 + #4 show no sign of hatching yet. Roosting, ♂'184 alone! (replaced ♂'68 late)

12 June Nest check at 1600, still 3 eggs.

13 June 1530. Still 3 eggs

(3 June 1980 Road 3) + 4 June

both ♂♂ follow ♀
♂184

♂68
both ♂♂ fail ||
♂184 (1) ||
♂68 (1)

flights away from ♀265
♂184 (||) |
♂68 (||) |

feeds	J?	J537	J538	J539
♂184				
♂68	||			||
♀265				

0810 2♂♂ 2 basio, nt
♂184 nest
0820 ♂184 in nest | ♀265, ♂68 elsewhere
0825 ♂184 ♀265 J539 | nest area
0830 ♂184 in nest | others elsewhere
0835 " NI
0840 "
0845 "
0850 ♂184 |
0855 ♂68 ♀265 | Juvs
0900 ♂68 ♀265 2 Juvs | nt
0905 ♂68 ♀265 nareen
0910 ♂184 ♀265 nareen
0915 ♀265 nest area
0920 ♀265 ♂68 nest tree
0925 "
0930 nobody

4 June 1980

0745 ♀265 nest |
0750 " NI
0755 " "
0800 ♀265 gran | I
0805 ♂68 alone nest |
0810 nobody
0815
0820 core 3 2 Juvs
0825 ♂184 alone |
0830 ♀265 alone | nest
0835 " NI
0840 " NI
0845 " NI
0850 " NI
0855 ♀265 ♂184 | nest area
0900 ♂184 nest | alone
0905 ♀265 ♂68 | nest area
0910 ♀265 ♂68 |
0915 ♀265 alone | nest
0920 ♀265 nest
0925 " NI
0930 ♂184 ♀265 | nest area
0935 ♀265 alone | Syia
0940 ♀265 ♂68 Juv | nest area
0945 " Juv | " NI

1980 R. L. Mumme

Melanerpes formicivorus

PRE-NESTING BEHAVIOR SUMMARY

Road 3

30 May - 1 June

association

95 points (5 min intervals), core 3 (♂184 ♂68 ♀265) all together (within approx. 10 meters or same tree). Only 3 sampling times were they separate, (2 times ♂184 separate, once ♀265 alone in nest area)

core together	not together
95	3

following

both ♂♂ follow	♂184 alone	♂68 alone	fail to follow ♂184	fail to follow ♂68	flights away from ♀265 ♂184	flights away from ♀265 ♂68
46	2	1	1	2	6	2

2 June - 4 June

association -- 78 times I saw one or more core members

core together	not together
9	69

alone ♀265	alone ♂184	alone ♂68	pairs	♂184	♂68	all 3
26	30	11	♀265	7	19	9
			♂184	-	4	

following

both ♂♂ follow	♂184 alone	♂68 alone	fail to follow ♂184	fail to follow ♂68	flights away from ♀ ♂184	flights away from ♀ ♂68
1	0	4	9	6	11	10

Eggs laid 30 may, 1 June (broken), 2 June, 4 June so "pairing" broke down with the laying of the penultimate egg, about when incubation started.

total ♂ follows	non-follows	total ♂ follows	non follows
85	3	6	15
"before"		"after"	

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Road 3

14 June 1230, these guys are a real problem. Egg #1 is gone without a trace, #3 + #4 still unhatched, though it seems to be getting late

15 June Starting a combination nest watch and group watch (looking for juv. dominance) at 0800 [incredible flycatching frenzy, starting about 0850! Between 0917 and 0927 (10 min), → 114 separate flycatching sorties, all by the core 3! 114 in 10 min! A frenzy if I ever saw one. The insects were all stored in the storage holes of the nest tree. Frenzy began about 0850, wound down about 0950. At one point, a Grosbeak joined in the flycatching from the nest tree, chased out, however. Insects could have been predom. Lady Beetles

Checking the nest at 1300, still 2 eggs.

16 June Nest check at 1815. Finally, egg #4 has hatched, apparently today. I magic mark him on his left heel and foot. Egg #3 still doesn't look very serious. This was day 12 for #4, day 14 #3.

18 June Nest check at 1630, only one ~~[illegible]~~ baby. Egg #3 has a pinhole crack in it, and had been drained of its contents. It apparently did not develop.

21 June Roosting and old reliable ♂184 roosted.

29 June Nest check 1200, after an "orphan" from Westgate introduced. The "real" nestling weighs 55g, the orphan (black band) 38.5

3 July Nest check, the original weighs 73.5g, black band weighs 63.5g

22 July Start 1220, J538 Yel/Blk - Yellow here; His eye looks much better, and it also looks like he's in adult ♂ plumage. Probably wrong.

From 31 May, 1 June

dom	537	sub 539	538	617	618
537	–	2 ‖	2 ‖	‖‖	
539		–	2 ‖	1	
538			–	1	
617				–	
618					–

Melanerpes formicivorus

Road 3

(22 July) 1245 J537 Or/M arrives, displaces J538 from acorn, a reasonable dominance interaction, a few very
J dom.! mild pecks.

23 July Start 0650. 2 very young-looking juvs + an adult up in the PO Hill sap trees. 0730. J537 pecks hard
JD → at J617 Red-DBlue/LPink 3 separate times while being fed by ♀265. One more time a few moments later 0830. Coopers Hawk, everybody heads for holes. couldn't see who gave the alarm calls
JD → 0840, J537 gives a few gentle pecks to J539, ad feeding. J539 shows some tentative signs of molting into a ♀, as I think I see some dark feathers on "her" forehead, ~~after~~ 0840, worried about J617. 0930, both Juv J538 + J539 peck at J617 as all begging from adult. That would complete dominance table, if J618 did not fledge, as I suspect he did not. Will keep an eye on molt status of these guys. Will check nest later today (?)

Nest check at 1630, nest empty. No dead baby, so J618 must have made it out. Where is he?

24 July A quick watch here, still don't see J618, (0810 0845) so it looks bad for him. Nonetheless, only saw ♀265 ♂184, J538, J537.

29 July ~~Start 0800. 840, a perfect series among the new~~
~~J Do... Juvs.~~

29 July Bad news! While watching at Finch at 1030, a nice english fellow brings Juv 617 to me! He found it flapping around in the middle of the road near the Rd 3 granary. He was

Melanerpes formicivorus

Road 3

(29 July) alive + feisty, but he was definitely having trouble with his balance. I took him back to the labs, where we'll keep him boxed and fed for a few days.

30 July Start 1100. J539 looks like a sure ♀. Fantastic! Still some red on the forehead, but in the proper light, the black is very noticeable. J537, ♀265, ♂68 all seen.

still in captivity

Juv 617 is getting worse. No improvement in balance, always keeps his head cocked drastically to one side, skin around eyes very swollen and puffed up

2 Aug Juv 617 dies

22 Aug Cruise by at 1100. There guys out of acorns. Birds ~~♀265 and~~ sapsucking from live oak next to road

1105 fantastic, J 618 (L Green - D Green/white) is alive! A successful experiment

sapsucking too. Son of westgate. Excellent! J♀539, who was intruding at Rd 1 earlier, also here sapsucking. No apparent fire damage, other than tree losses on PO Hill.

9 Sept Start watch 0830. 0925, finally, ♀265 (D Blue/Yellow - LBl) flashes in, lands at 1980 nest hole (!) sits a few minutes, then flies off without entering. Also think I saw ♂184 white ---- with a huge, green Q. kelloggii acorn, although he flew off immediately 1000, after walking around, seeing nothing, giving up

1 Oct Come by here at 0920 to look for signs of storage. None yet, as far as I can tell. 0940 No action.

22 Oct Oral study break, start 1445. ♂537 wht/Or, plus J618 LGrn + DGrn/white, just starting to molt into ♀ plumage

Acorn storage 22 Oct 1980 1445 - 1630,

537	184	265	539	68	618
~~IIII~~	II	II	II		

Melanerpes formicivorus

Road 3

(22 Oct) 1615 Wow! ♀265, ♂184 were working in the 2° lobata granary, when somebody on the PO Hill side of the road started giving frantic alarm karrits (not the true alarm call). At that moment, a nice fat Accipiter cooperi zoomed into the tree, almost nailing ♂184, who barely got away. ♀265 + ♂184 flew off immediately, in an extremely agitated state, judging by their excited karrits. The Cooper's Hawk remained in the Valley Oak a few seconds, then flew off. Pretty exciting. Could have been the "stuff of evolution", since if the third bird (perhaps ♀539, who flew off to the direction of the ~~alarm~~ warning call a few minutes prior to the attack) had not been around, the Hawk might have nailed ♂184. Again, I wasn't sure who the caller was, but ♀J539 ♂J537, ♂68 all possibilities

Anyway, everybody seen well except no sign of ♂(J)538, not seen since July. Some acorn storage data on reverse of Page 10. Not much action yet. End 1648

13 Nov Start 1000. Good storage + granary attendance data on reverse. I appear to have boobed in calling J618a ♀ on 22 Oct, because he looks like a solid ♂ today. Oops! Anyway core 3, ♀539 DBlue wht(N)/ M/wht " ♂537 Orange/metal all seen quite well. ♂538 must certainly be dead. End 1200.

17 Nov More storing + granary censusing today. Not a lot of storing, mostly moving acorns around by 1° ♂68, ♀265, ♂184. Everybody seen, except ♂538, of course. End 1105.

13 Nov 1980 Rd 3 granary census 1000 - 1200

1000 Nobody here
1005 "
1010 "
1015 ♀265 + ♂184
1020 nobody
1025 ♂68
1030 ♂184
1035 nobody
1040 ♀265
1045 nobody
1050 ♀265, ♀618
1055 nobody

1100 ♂68
1105 ♀265
1110 ♀539
1115 ♀539 ♂537
1120 ♀265 ♀539 ♂537 ♂184
1125 ♂68, one other (?)
1130 ♂68 2 others
1135 ♀532, 2 others
1140 ♀265
1145 nobody
1150 ♂184, ♂537
1155 ♂68 ♂184
1200 ♂618 ♂?

	♀265	♂184	♂68	♀539	♀618	♂537	Unk stores
storage	𝍸 𝍸 ||||	𝍸 𝍸	||||	|||	|	||||	|||| |
	9	10	4	3	1	4	6

17 Nov 1980 0905 - 1105 Road 3

0905 nobody
0910 "
915 ♂184 ♂68 ♀539
920 ♀265
925 nobody
930 "
935 "
940 nobody
945 "
950 "
955 ♂184 ♂68 ♀265
1000 ♂184 ♂68 ♀265

1005 ♂184 ♂68 ♀265
1010 "
1015 ♂68 ♀265
1020 ♂68 ♀265
1025 nobody
1030 ♂68 ♂184
1035 ♂68 ♂184 ♂618 ♀539
1040 " " " "
1045 ♂184
1050 ♀539 ♀265 ♂68 ♂618
1055 ♂68
1100 ♀265
1105 ♀265

	♀265	♂184	♂68	♀539	♂618	♂537	Unk
Storage	𝍸 |||	|||	||	|	|	|	|
	5	3	2	1	1	1	1

Melanerpes formicivorus

School Hill — Hastings Reservation

27 Jan Start watch 0900. All 3 adults here (♂86 LPink/Metal, ♂402 Yellow/BPink Yellow/DPink and ♀266 (Facial pattern), but didn't see the babies. Thought I might have see juv. 524 M/DGr-BPk briefly (pecked at by ♂86, as ♂86 processed an acorn) but I wasn't sure. End 1120.

14 Mar 2♀♀ in gra-ary as I arrive at 0840. 0845, ♀524 M/DGr-BPnk (N) in granary. ♂86 Mauve/Mauve LPnk/M and a third ♀ later. 0935, nobody in granary. Will try SHWest awhile.

Back at 1140. ♂402 Yel/DPink seen up at the top of the clearing. 1225 giving up

31 Mar First attempt at trying to experimentally initiate territory defense. I took the recently-caught Blom-One ♂, ~~and~~ caged him, and hoisted him about 7 feet above ground in the School Hill granary, starting at 1255. At 1320, ♂86 finally arrived, landing in the top branches of the VO adjacent to the granary. 1321, moves into granary 10 meters from caged ♂ 1327, flies to VO perch, 1328, leaves. End 1345

Response pretty much restricted to sidelong glances at the cage. My playing the tape seemed to do nothing at all.

6 April 0700, as I arrive, one bird was peering out of the traditional nest hole, another was at the entrance. Could it be? The blind here is gone (blown down the hill). 0735, ♀260, ♂86 arrive together, followed moments later by a third, ♂402. ♂86 cats catking (F). 0850, ♀260 chases jay. 0800, ♂86 chase plain titmouse. ♂402 does the same. ♂86 chases flicker.

Melanerpes formicivorus

School Hill — Hastings Reservation

(6 April) he is followed by ♂402. 0820, NB♀ chased by both ♀260 and ♂86. 0830, ♀260 flies 100 m up the hill, not followed by ♂♂. End 0840.

10 April Start watch 0710. a ♀ (260?) in granary as I arrive. Coopers Hawk calling below field. 0730. ♀523 back, eats acorn (F). 0735, core 3 together in granary. ♂86 flies → 75 m up hill, not followed. 0750, NB♀ intruder chased by ♀260, ♀523. ♂86 followed over, but did nothing or little. 0800, ♂402 in granary flies 50m uphill, not followed. → again at 0805, a NB♀, chased by ♀260 and ♀523 ♀260 very friendly to ♂♂, open-wing wakas, raised tail, looking like she's ready! ♀524 was here briefly earlier, at the N. end of the exclosure, but I don't see her → anymore. 0810, a NB ♂ intruder, I believe chased by ♂86. ♀523 seems to have disappeared by 0830 (Back to Plaque?) 0835 ♀260 flies to adjacent vo, followed by ♂86, then ♂402. 0840, ♀ intruder back above exclosure. Chased mildly by 402, ♂86, strongly by ♀260. End 0850. Checked hole, zilch.

14 April Start watch 0840. Cooper's Hawk SW of field. Nobody in granary as I arrive. I checked the hole, no eggs yet. 0915, Nothing much happening. Going to look around. Up at School Hill B, ♂402, ♀524, and another ♀. Over to SH West at 0930. ~~1040 Holy shit, 3 birds here! One is definitely ♀~~

15 April Start 1815. Nothings up. Roosting Cone bird in, another outside looking

16 April Start watch 1615. Nothing in nest hole. 2 birds in granary as I arrived ♂86, ♀260, ♂402 all here

Melanerpes formicivorus

School Hill — Hastings Reservation

(16 April) ♂86 Flycatches (F): 1730. Only ♂86 + 402 here regularly. Obviously, they aren't all that concerned about ♀260 just yet. End 1730.

18 April ♂402 and ♀523 (fide Nancy) hanging around Yard pump today. I checked the nest hole here once again, finding nothing

21 April Checking holes here on a rainy, nasty day. Nothing

24 April Checked holes, looked into last years nest. Zero.

25 April Start watch 0745, foggy, misty. At ♂ (looks like 86) in favorite spot as I arrive. Somebody hurrits up the hill from me. 0809 ♀524(?) metal/c. also here. ♂402 + ♂86 here, also with a ♀. All foliage gleaned from Valley Oak (F). 0840, this is pretty dull. Calling it quits.

26 April Checked holes. Zero.

29 April Start watch at 1500, with clouds + fog skimming over School Hill. Shit! These buggers have a nest with babies! Old babies at that. I was tipped off by ♂402 and ♂86 carrying food in their bills. The nest is located in the 4th (upper) enclosure tree, facing down.

2 May ♀524 intruding at Low Hay (why isn't she home helping?)

15 May Start 1130 (1030) Nobody around as I arrive. After 1st nest failed, these guys should be renesting soon.
Both ♂♂ and F believe ♀260 flying. ♀260 confirmed. Also ♀523. metal/ ♂86 + ♀260 take a peek in the opened Blue Oak hole at the bottom of the hill. Also, saw ♂402 fly to a new hole! In the big, fresh dead stub of the "middle hole" Valley Oak. Looked like a decent hole, too.

25 April 1980 School Hill

0745	♂402 alone
0750	"
0755	"
0800	"
0805	"
0810	"
0815	♂402 + a ♀, ♂86 sep
0820	♂ " " "
0825	All 3

Melanerpes formicivorus

School Hill — Hastings Reservation

17 May Start at 1310, Nobody here. 1325, ♀524 (N)/white Metal/(N) here, also ♀260. 1400, boy, this place is dull today! Going to look around. Whoops, they fly in from SH "B" area. ♂402 quickly mounts ♀524 when she flies in (!). ♂86 here too. 1406, somebody enters the Blue Oak Hole! I believe ♀260 (or 524), but not sure. both ♂♂ outside while she's in! 1415, a lot of in + out action, ♂♂ hanging outside of hole, etc. Better check this baby soon.

1630, after finally getting the frigging hole open (very overgrown, wrong sans, etc.) I discover no eggs! They'll nest here soon enough, though, I think.

18 May Start watch 1050, nobody around or in Blue Oak hole as I arrive. ♀523 around (F) 1104, ♀260 flies in, with 2 ♂♂ in hot pursuit! She flycatches (F) as does ♂86 + ♂402, and ♀524. Everybody here!

1155, Finally some action at the Blue Oak hole. ♀260 goes in, the 2 ♂♂ attending. I believe ♂402 goes into the hole with her.

1230, I get up to the hole, and lo + Behold, one fresh egg! A new nest, and a chance to get some data.

Back in the afternoon with tape recorder for some behavioral data; Association data on back

1740 (1640) Nobody home

1910, mounting or copulation action in the granary, but behind foliage from me.

1930, I just miss some mounting and dominance

18 May School Hill -- Birds within same tree or 10 meters of each other.

1740 -

625 core 3 |
630 " |
635 ?
640 ?
645 ?
650 ?
655 ♀523 |
700 ♀523 | core 3
705 ♀523 | core 3 NI
710 core 3 ♀523 |
715 core 3 |
0720 ?
725 core 3 |
730 core 3 + ♀523 |
735 core 3 |
740 core 3 | NI
745 ♀523

♀260 followed by both ♂♂ |||| |

♂86 alone

♂402 alone

1745 - 1945

120 min

Melanerpes formicivorus

School Hill

(18 May) activity in the granary. My first look suggested that ♂86 was getting pecked by ♀260, which made no sense at all. My second look suggested that I didn't know what was going on.

At roosting, 3 "core" members (presumed) showed up in the 1° Valley Oak. Much mounting, all birds very close together. At one point, 1 ♂ got in a good copulation (tail twist, cloacal contact, good duration). Immediately after he dismounted, the second ♂ tried to mount the female. As he was fluttering on, the 1st male flew on top of both, breaking up the copulation attempt (?) of the second ♂. Later, a possible good copulation, but not sure. I don't think anyone roosted in the nest. After the pre-roost mounting, all 3 flew to the traditional Valley Oak hole, at least 2 went in (heard 2 separate bouts of squealing + chattering. Later another bird back in the 1st exclosure tree, but nothing after that

19 May Start watch at 0605 (0505). Association data on back.

0623.47 ♀260 enters nest with nasty-looking bulge in lower abdomen. 0626.30 ♀260 exits. 0627, ♂86 enters. 0628, ♀260 enters again. Confusion, lots of in and out by the ♂♂. When ♂402 in nest, ♂86 came, both appeared to chatter! 0710, ♂86 flies to nest while ♂402 in. ♂86 chatters!

* By 0748, I lose the birds, going to check nest.

0800 Yes, fans, a fresh new egg in the nest (2 total) laid certainly by ♀260 sometime between 0623 (0523

19 May 1980 School Hill

0625 core 3 | ♀523 | ♀524
0630 core 3 | ♀523
0635 core 3 |
0640 " |
0645 " | ♀523
0650 " | ~~[illegible]~~
0655 " | I OK
0700 " | NI
7005 " | NI
0710 " | ♀523
0715 all 5 together
0720 " NI

♀260 followed
by both ♂♂ ~~IIII~~ ||||
86 alone 1 (?)
402 alone

0725 core 3, ♀523 |
0730 " |
0735 core 3 |
0740 core 3 | (ind)
Nestcheck

0820 ♀523 | core 3
0825 ♀523 ♀524 |
0830 " | NI
0835 " | NI
0840 core 3 | ♀523
0845 core 3 | (ind)
0850 core 3 | (N Ind)

♀523 not followed
1

0855 all 5 |
0900 core 3 | ♀524 ♀523 |
0905 core 3 | ind
0910 " | ind
0915 core 3 (NI) |.
0920 ?
0925 ♀523 | core 3
0930 ♀523 | core 3 (NI)

0625-0930 185 min

♀524 not followed
1

Melanerpes formicivorus

School Hill

(19 May) and 0710 (0610), I guess. I would suspect that the egg was laid on the ♀260's first visit to the hole at 0623, when she had the nasty cloacal bulge.

0845 one case of ♂86 initiating a short flight to granary, he was followed by ♀260 and ♂402.

** 0900 ♀524 (or ♀523) goes on small flycatching sortee, on return ♂402 flies over, mounts her briefly,

0901 ♀ intruder, chased first up hill by ♀260, then 2 1st yr ♀♀ fly up that way, then ♂86, leaving ♀260 + ♂402 in 1° tree. He returns by 0903.

*** 0906, ♀523 flies in, ♂402 mounts briefly, she tries to mount him, ♂402 directs sharp pecks at her head. Strange!

** Back in the afternoon at 1645, ♂86 in hole, ♀260 at hole looking in, ♂86 heads out and pecks and jabs at the head of ♀260 !! ♀260 chatters quite a bit!

Dubious! → I was pretty confused!

1930, both ♂♂ viciously dispatch an intruder, which I wasn't able to get the sex of! 1940, ♂86 lags in a two-♂ follow of ♀260

At roosting, the pair 3 arrived in the 1st enclosure tree late, and just some routine mounting attempts, with one or the other of the ♂♂ moving toward the two others when a ♂ tried to mount. Certainly no happily shared copulations!

20 May Start 0600 (0500), already ♀260 in the nest hole, ♂86 looking in, he enters 615.20. at 616, ♀260 leaves nest (I suspect egg #3 now laid)

→ At 0655, I get a surprise, when ♀494 Red-Wht / Red WR / Metal

19 May 1980 School Hill

Afternoon watch start 1610 (1510)

425 all 5 |
430 ♀523 ♀524 |
435 " | (Ind)
440 core 3 | ♀523
445 core 3 |
450 core 3 |
455 core 3 | NI
500 core 3 | I
505 core 3 ♀52? |
510 core 3 | ♀523 ♀524 |
515 ?
520 ?
530
535
⋮
555

605 core 3 |
610 core 3 | I
615 core 3 | ♀523
620 all 5 |
625 ?
630 ♀523 |
635 ?
640 ?
645 core 3 |
650 " | (NI) ♀523 |
655 core 3 | (I) ♀523 |
700 ?
710 core 3 | ♀523
715 core 3 ♀523 |
720 core 3 | I
725 core 3 | I

730 core 3 | (NI)
735 core 3 | NI
740 core 3 + ♀523 |

195 min

1625 - 1940

---

19 May (20 May) morning

♀260 followed by both ♂♂ (||||| ||||| ||)

by 86 alone

♂402 alone

♀523 not followed (1)

♀524 not followed (11)

May 1980

0605 core 3 | ♀523 ♀524 |
0605 core 3 | ♀523 |
610 " " NI
615 " " NI
625 all 5 |
630 " | NI
635 " | NI
640 " | NI
645 " | NI
650 " | NI
655 core 3 | I
700 ♀260 (in nest) | everyone else (in granary)
705 core 3 ♀524 (nest) | ♀523
710 ♂402 ♀260 ♀524 (nest area) | ♂86 ♀523
715 core 3 | ♀523 ♀524
720 core 3 ♀524 | ♀523
725 core 3 | ♀523 ♀524 |
730 core 3 | NI
735 core 3 ♀524 |
740 ?
745 ?

815 core 3 |
820 core 3 ♀524 |
845 ♀260 | ♂86 ♂402
850 ?
855 core 3 |
900 " | I
905 " | NI

150 min

~

Melanerpes formicivorus

School Hill

(20 May) from Plaque intrudes here! Chased out by ♀260! What is she doing up here?

Core 3 flies to nest hole at 0658, ♂86 then ♀260 enter, ♂402 outside looking in. ♂86 leaves at 0659.30

At 0700, the ♂♂ actually away from the ♀! she's in nest ♂♂ in granary with 1st-year ♀♀!

70~~4~~ ♀424 enters nest! Out at 705.30

708. ♂402 enters (♀260 in). At 710, ♂86 actually leaves nest area, flies to granary briefly.

711. ♂402 + ♀524 at nest together, ♀260 in. ♀524 chatters!

718 ♂86 enters hole (♀260 in) 719 ♀524 (or ♀~~[illegible]~~) enters. 720 ♀524 leaves, ♂402 enters, 721 ♂86 leaves 726 ♂402 leaves 729 ♂86 enters. 734 ♂86 leaves

→ 735 ♀524 at nest, ♀260 in, ♀260 sharp pecks and tugs to face of ♀524! ♀524 chatters

745, everybody leaves

819 ♀524 (or ♀523?) flies to nest, chatterring

8~~4~~5 ♀260 flies to nest from 1° tree, neither of the ♂♂ follow her immediately, although later

× 909 ♂402 delayed follow of ♀260 & ♂86

915 checking nest, one unmarked egg, marked #3 suspect layed around 0600 (0500)

Back up here at 1900. Checked the hole via peeper, still 3 marked eggs in the nest. Good! No surprises. These guys may be incubating already, as a ♀ (presumed ♀260) was looking out as I arrived, She sat very tight, not flushing until I was 3/4 of the way up the tree.

Melanerpes formicivorus

School Hill

(20 May) 2000, some early pre-roost mounting action. The core 3 plus at least 1 1st year ♀ in the 1st exclosure tree. ♀260 flies to horizontal branch where ♂86 is. ♀260 lands with tail up, wings drooped. ♂86 starts to mount. ♂402 then flies down, and hops on top of ♂86, leaving 3 birds piled on top of each other. ♂86 did not get in a good copulation, and the menage broke up; ♀260 then took off to the SW (Malaise trap, RT Hawk nest area), and the 2 ♂♂ immediately took off in hot pursuit.

21 May A fairly poor morning watch here. Really didn't get any good data on association. Birds weren't around very much, and the fog really put a cramp on things, nonetheless, another egg laid.

702.15 ♀260 enters. ♀523 at nest, chattering. 711, ♀260 heads out. 711.40 Back down 713 ♂86 enters nest 719, ♀524 enters. 720 ♂86, ♂402 leave. 720 ♀524 leaves nest. ♀260 still in as I check nest at 0815. A 4th

Egg → egg, I marked as #4. I suspect the egg was laid when ♀260 first entered about 0702 (0602). They are definitely getting geared up for incubation, as ♀260 remained in the nest until at least 0800 (0700).

Back in the afternoon, with weather deteriorating. The "packing" of the core 3 has subsided considerably, and ♀260 seems to be incubating with some enthusiasm. I even did a nest watch, all ♀260. At Roosting, the core 3 flew into the 1° tree but I didn't see anything as far as mounting. One bird roosted in the nest, too.

21 May 1980 School Hill 1645 (1545)

445 core 3
500 " NI
505 ♂402♂86 | ♀260
510 " | " (NI)
515 all but ♀260 | ♀260
520 ♂♂, ♀524 | ♀260
525 all, 5 |
530 ?
535 ?
540 ?
545 ♀260 |
in nest alone until 710
720 alone in nest until 730
730 ♂402♀260 |
735 " | NI
740 " | NI
745 core 3 |

♂	♀260 followed	not followed
by both ♂♂	///	//

---

21 May 1980 School Hill

NESTWATCH 1730 (1630) – 2030 (1730)

180 minutes

530 start watch, nest empty
543.00 ♀260 enters
628.00 out
630.00 down
654.40 out
658.00 down
709.00 out
711.00 ♀260 leaves
721.50 ♀260 enters
732.30 ♀260 out
733.20 down
742.20 out
744.30 leaves
830 end watch

Melanerpes formicivorus

School Hill

22 May A windy blustery AM, I walk up to check the nest at 1030 (0930). Nobody in the hole as I arrive but a nice new egg, which I marked #5, laid this morning, I presume. I also trimmed up the inside border of the hole, making it easier to reach in and pull out the eggs.

24 May Checked the nest with a feely-touchy method (peeper out of whack), but I felt 6 eggs. Clutch indeed complete as of yesterday.

28 May I watch roosting here, and although I don't see the bands of the rooster, head pattern seemed certainly like that of ♂86 (Long + sleek head shape). ♂402 (double mustache) was in the hole as I arrived, but he flew out.

1 June I check the nest, and two interesting developments: ① Egg #3 is hatching! Egg was pipped, the baby making peeping noises. My picking the egg up cracked it a little more, but the baby continued to peep away, no problem. I put a little rapilograph ink on the part of his body that was showing (I think the right knee). He was laid on 20 May, so he is 12 days old today. ② Egg #1 is not in the nest!! All others accounted for. After checking the nest, I found egg fragments directly underneath the hole, which I presume was #1 (although none of the fragments had markings). Perhaps it hatched + baby died already, or broke in the nest. A mystery.

2 June Checked the nest at 1245. 3 babies, 2 eggs, #5 + #6 remaining unhatched.

Melanerpes formicivorus

School Hill

(2 June) The one I marked with rapidograph ink yesterday (#3) still had a trace on his left foot, and he was definitely the biggest of the babies. I also marked his right leg. The other two babies (#2 + #4) I marked on the left leg and the left wing. Don't know which came from which, however. I'll have to come up tomorrow and do a better job of marking them. Also will have to check on #5 + #6.

3 June Checked the nest at 1700. Egg #6 is hatched, probably today as the baby is small, shells still in the nest. Others were all recognizable from my previous marks. Egg #5 had not yet hatched, but appeared to be pipping. See nest record sheet for measurements & magic markings of the nestlings.

7 June Roosting, a ♀ looking out as I arrive, she leaves late, leaving another bird in the hole, which I think was ♂ #6

10 June Nest check, weighed + measured nestlings

16 June Nest check, and the little devils gave me a scare. Nobody in the hole as I arrived, no peeps when I put my hand over the hole. However, all OK, gaining 10 g the last 2 days.

18 June Roosting, and I don't think anybody roosted in the nest. A very cold foggy night, too.

19 June Nest check, the 3 babies fine and dandy! Roosting, I flush 2 birds out of the hole as I get there, but nobody returns. I guess they just aren't roosting in the nest anymore.

6 July Start 0815. First thing I see is a Juv NB in the "holy VO" above the exclosure. I certainly hope he's just an intruder.

Melanerpes formicivorus

School Hill

(6 July) ♀523 wht-DBlue also here. Whew, ♀260 chases JNB! 0830, correction, 2 Juv NB kicking around. One has a very dirty face. I wonder where these guys are from? 0840, Sanovagun, a Juv looking out of the nest hole. 36 days, and they still haven't fledged? No, one is going in & out. "Partially" fledged

8 July Start watch 1630. All 5 adults here. 1800, finally I see Juv 603 metal/ peck & J604 R-wht/Blk

→ sharply! 1845, at nest hole J602 Blk-white/M peck-and

→ grabs onto J603, who I didn't see but since J604 was in the granary at that time, it had to have been J603. That means I have J602 → J603 → J604. Good. End 1915

9 July Start 0825. 1225, complete census, but these guys are tough to watch. A few juv interactions, but always where I couldn't see.

13 July Once more 1645. Not much 1730. Going to check out shooting at lambs. Juvs 602 + 604, core 3 seen.

1 Sept Start 0845. 2 Juvs, ♂86 here. ♂86 actively chasing a ♂NB intruder. 0930 a ♀ intruder I read as ~~DBlue/LPink~~ DBlue/LPink-DBlue DBlue-LPink/metal (I could have reversed the legs!), here, ~~chased~~ supplanted mildly by ♂402 Black-white. 0946

→ Juvenile dominance! J602 (Red white/Black) displaces J604 at acorn, completes the dominance table. No adult nearby. 1030 ♀260, ♂402, ♂86, 2 Juvs all I see. Worried about J603, curious about ♀♀523 + 524. End 1045

11 Sept Up here at roosting, I make the grim discovery of J603's carcass hanging from the 1980 (1st nest). Apparently, he

dom \ sus	602	603	604
602	—	1	1
603		—	1
604			—

1980 R.L. Mumme

Melanerpes formicivorus

PRE-NESTING BEHAVIOR SUMMARY

School Hill

18-20 May association data

84 samples where at least one of the core (♀260, ♂86, ♂402) seen.
of these, only 3 when all 3 birds weren't together,
1 ♀260 alone, ♂♂ together, one (1) ♂402 ♀260 together,
♂86 elsewhere. (5 min intervals, within 10m or so or in same tree)

	Times with ♀	away from ♀	all 3	
♂86	81	3	together	81
♂402	82	2	not together	3

Following behavior

both ♂♂ follow	♂86 alone	♂402 alone	fail to follow ♂86	fail to follow ♂402
30	0	0	0	0

Association started to break down on afternoon of 21 May, 3 double follows, 2 double non-follows, ♀260 alone in nest. First egg laid 18 May (14, 20, 21, 22, 23). Only eggs 2-4 produced fledged young.

Also, ♂♂ showed no interest in 1st yr ♀♀!

♀523 not followed by both ♂♂ — 2 non-follows (0 follows)

♀524 not followed — 3 (0 follows)

	♀523 with ♂♂	away from ♂♂	♀524 with ♂♂	away from ♂♂
	18	23	16	7
for occassions when I know whereabouts of core + the 1st yr ♀	18	70	16	71

(assumes if I can't see them, not near)

for occassions when I know whereabout of one or the other

Melanerpes formicivorus

School Hill

(11 Sept) got his toe or leg caught in the saw crack while flying out, and he just hung there until he died of starvation/exhaustion. Grim. Have to be careful of that in the future. He was a pretty driedup birdy so I'd suspect he'd been there since mid-late August or so.

13 Sept At the Y, both surviving juveniles J602 Black/White, and J604 Red-White/Black, both in ♀ plumage! Sehr Gut. Also here with ♀524 Dbrown-BPink(N)/wht. Perhaps a more in store? fairly persistent around Blomquist pond and Blom Knoll. 0930. Back again at 1130, ♂402 + ♀523 also at Y (see Y notes)

9 Nov Lots of SHill birds seen at Y (see Y notes).

23 Dec Watch start 1115. 1145, some evidence that ♀523 may be subordinate to ♀524. ♀523, ♀604 at old

Dom → VO nest tree, drinking water out of a ~~gap~~ hole, when ♀524 flew in. ♀523 chattered as ♀524 arrived. Also saw ♀523 pecks hard at the water hole at the head of ♀604, so that is encouraging, age dominance, etc. 1200, all the young ♀♀ seen, so they are not always

Dom hanging out at the Y. 1230. ♀604 working an acorn in the "Main" VO, ♀523 flies over, pecks ♀604 off the acorn, and ♀523 starts to eat it herself. Moments later,

Dom ♀524 flies over, ♀523 chatters, and moves off the branch. 1250. ♂402 + ♂86 LPnk/M seen, and I think ♀260 wht/Metal as well, making complete census

1980 R.C. Mumme

Melanerpes formicivorus
NEST RECORD

School Hill

egg # 1	18 May	hatched early, died? ? ? ? gone 1 June, shells below nest
egg # 2	19 May	hatched 1-2 June
egg # 3	20 May	hatched 1 June
egg # 4	21 May	hatched 1-2 June; pipped 3 June
egg # 5	22 May	
egg # 6	23 May	hatched 3 June

	#2 (* not certainly #2 (4))	#3	#4 (not certainly #4 (#2))	#5	#6
	left leg	left foot, Right leg	left wing 6th 1° Mid Retrix	*wing length? not hatched	Right leg, Right wing
		weight / wing; culmen / tarsus			
	10.4 / 9.0	10.0 g / 10.0	8.8g / 8.2		4.0 / 8.0
3 June	6.3 / 13.2	6.8 / 13.5	6.1 / 12.4	not hatched	5.4 / 10.0
		? (#4)?		Marks disappeared	
	LG-O (R)	Red-Or (R)	unbanded		
	27.5 / 13.9	29.5 / 14.5	29.5g / 14.7		
8 June	10.7 / ?	11.0 / 20.0	10.9 / 20.0		
	hallux hung up on leg (freed)				
1630 (1530)	37.7g / 17.0	38.5g / 16.3	37.2g / 17.8		
10 June	12.4 / 21.2	12.9 / 22.8	11.7 / 22.2		
1730 (1630)	45.4 / 18.8	46.8 / 20.0	47.5 / 20.9		
12 June	14.1 / 22.8	14.3 / 23.0	13.3 / 22.7		
1800 (1700)	57.0 / 22.8	59.4 / 25.0	57.0 / 23.1		
14 June	14.5 / 23.9	15.4 / 25.5	14.4 / 23.7		

eyes of NB & Red-Or just starting to open. Feathers on all 3 now starting to stick through. Will have to add feather measurements

	L Green-Orange (R.W.B) 604			Red Or (BKK-Wht) 602			NB (D Blue) 603		
1730 (1630)	70.2 / 27.4	7.0		70.2 / 28.2	8.0		68.4 / 30.7	9.0	
16 June	16.4 / 24.8	5.6		16.8 / 24.7	6.0		17.3 / 24.1	7.0	
1500 (1400)	80.3 / 34.4	15	39	80.5 / 35.4	21	48	79.3 / 34.2	20	45
19 June	18.0 / 25.5	11		18.1 / 24.7	18		17.6 / 24.3	15	
1500 (1400)	83.0 / 36.9	26	53	86.5 / 37.4	34	59	79.0 / 36.2	32	58
21 June	19.3 / 25.3	18		19.3 / 24.4	23		18.5 / 24.5	23	
1600 (1500)	84.0 / 36.9	38	66	84.2 / 39.4	44	69	77.8 / 39.4	43	69
23 June	19.4 / 25.2	26		19.7 / 24.8	30		19.3 / 24.8	31	
1500 (1400)	89.2 / 38.0	49	75	88.2 / 38.2	55	82	83.2 / 38.2	53	78
25 June	20.5 / 25.8	32		20.5 / 24.9	36		20.0 / 25.0	36	

1980 Ronald L. Mumme

Melanerpes formicivorus

School Hill West — Hastings Reservation

14 March Start watch 1030. Nobody's been seen here since November, although I did flush a bird from near the granary as I arrived. 1120 nothing's up. No wakas, no karrits.

29 March Trying again at 1545. A bird was near the granary as I walked up, and since then I've heard a few wakas, suggesting two birds (at least). 1645, Nothings doing. I walked around, looking for potential nest holes for these guys, finding a fresh hole start in a nice, soft, rotten stub of a Blue Oak, on the S side of the ridge. Unfortunately, the hole looks pretty big, and there are Flickers all over the place, calling, drumming, etc. The start is located ~ 50m up the slope from the SH West granary.

14 April Cruised by here at 0945. Finally a quick look at the bands of a ♂ that checks out as ♂530 (Light)/Metal. Can't be certain, but it at least checks out OK. Ash-throated Flycatcher up here, first of the season for me. Also, wakas given in granary where I saw ♂530, so at least 2 birds here. 1005, a ♀ here with the ♂. Will try to see who. 1040 Holy shit! 3 birds here, ALL BANDED! One is certainly ♀531 Brown-Or/Brown Or with the very squeaky voice. As for the other 2 birds, could they be Finch babies? 1500 babies? 1045, one ♂ looks like ♂ LPink-Or/LPink-Or, the other ♂ like white-DBlue/white-DBlue but that could be way, way off. A ♀ here was certainly chasing a ♀NB. I suspect ♀531. She definitely later chases a NB♂. Seems like Post-revolution action. Another look at a ♂ (Light)/Metal (?). End 1300.

1980 R.C. Mumme

Melanerpes formicivorus

School Hill West — Hastings Reservation

15 April Start watch 1700. 1715. Surprise surprise, the two School Hill ♀ babies, ♀523 (DGreen-BPink(N)/white; h/Red-DBlue) and ~~[illegible]~~ ♀524. In the granary, acting like they own the place. Nobody chasing (?!?!). 1730, Both gone. 1745, Wattas, including scratchy ♀531. Not coming to granary, though. Giving up 1800.

21 April Checked holes here, no go.

26 April "

29 April Arriving at 1300, I flush a bird out of one of the holes in the Black Oak. Couldn't see which hole, since I approached from the wrong side.

2 May Starting watch from hide 1500. 1630, Boring as hell. 2 birds (at least here), nobody in holes, heard scratchy voice of ♀531, though.

5 May 1520, a ♂ in the hole as I start watch. He's looking out of the hole that faces straight down in the higher live limb of the Black Oak nest tree. They surely have a nest!

29 May Up here to check on these guys at 1210. Nest still active! 1310 ♀531 Brn-Or/M flycatches (F), feeds babies.

25 June A walk by, ♂593 (DBlt-LPnk/LPnk-DBlue) here.

1 Dec Start from hide at 1030. A good # of acorns stored here, mostly Black Oak. 1230, Adult dominance! ♂530 pecks hard at head of ♂592 at granary, both working at same acorn. I notice that ♂530 (BPnk-Or/M; BPnk-Or/BPnk) has heavy tail spotting. Unusual. ♀531 (Brn-Or/Brn+Or; Brn-Or/M) and ♂592 (Yellow LBlue/Yellow-LBlue) here. No sign (really) of anyone else. End 1300

5 May School Hill West 1525 (1425) –

0.00 ♂ head out
16.40 ♀531 replaces
21.40 out (bluebird)
23.00 down
00.00
20.00 still down

---

1 Dec 1980

1100 nobody
1105 but
1110 nuthatches
1115
1120
1125 ♂530
1130 ♂530
1135 ♂592
1140 ♂592
1145 ♂592
1150 ♂592 ♂530
1155 ♂530
1200 nobody
1205 "
1210 "
1215 "
1220 ♂530 ♂592
1225 ♂592
1230 ♂530 ♂592
1235 ♂530 ♂592
1240 ♂530 ♂592 ♀531
1245 ♂592
1250 ♂592 ♂530
1255 nobody
1300 ♂592 end

1980 R.L. Mumme

Melanerpes formicivorus

Black Oak — Hastings Reservation

6 April — Watching at Bianca 1015, 3 birds here, which I presume are Black Oak birds. 2 ♂♂, 3rd unknown. 1130, In hide at Black Oak for ½ hour, nothing's doing. Al

27 April — 4 birds (2 ♂♂, 2 ♀♀ at Bianca), one almost certainly ♂426 Black/Or-wht. Also ♀427 Red/M; ♀320 Red-L Green/Black-Purple. Flycatching from Biancas Valley Oak near LA2.

7 July — A confusing roost watch. A juvenile was looking out (even after I flushed 3 birds out of the hole, then 2 more roosted. I really couldn't tell who was who.

1980 R.L. Munne

Melanerpes formicivorus

Arnold I — Hastings Reservation

6 April Start watch 1145. ♀ 505 white/LPink in granary, at 1205. Coopers Hawk ♀ at 1208. 1215 ♂ 100 Yellow-DGreen/Yellow-DGreen here. End 1215.

27 Aug I swing by here and see ↓568 white-mauve/M, plus another juv I didn't see bands of.

1980 R. L. Mumme

Melanerpes formicivorus

Upper Arnold 2

27 April Start nestwatch 0730 (0830 PDT). End 0800, Nothing here but mucho action at LA2. 1010 (1110) trying again, ♀ in the hole looking out.
0.00 ♀ looking out 45.00 leaving.
16.30 ♀ leaves nest

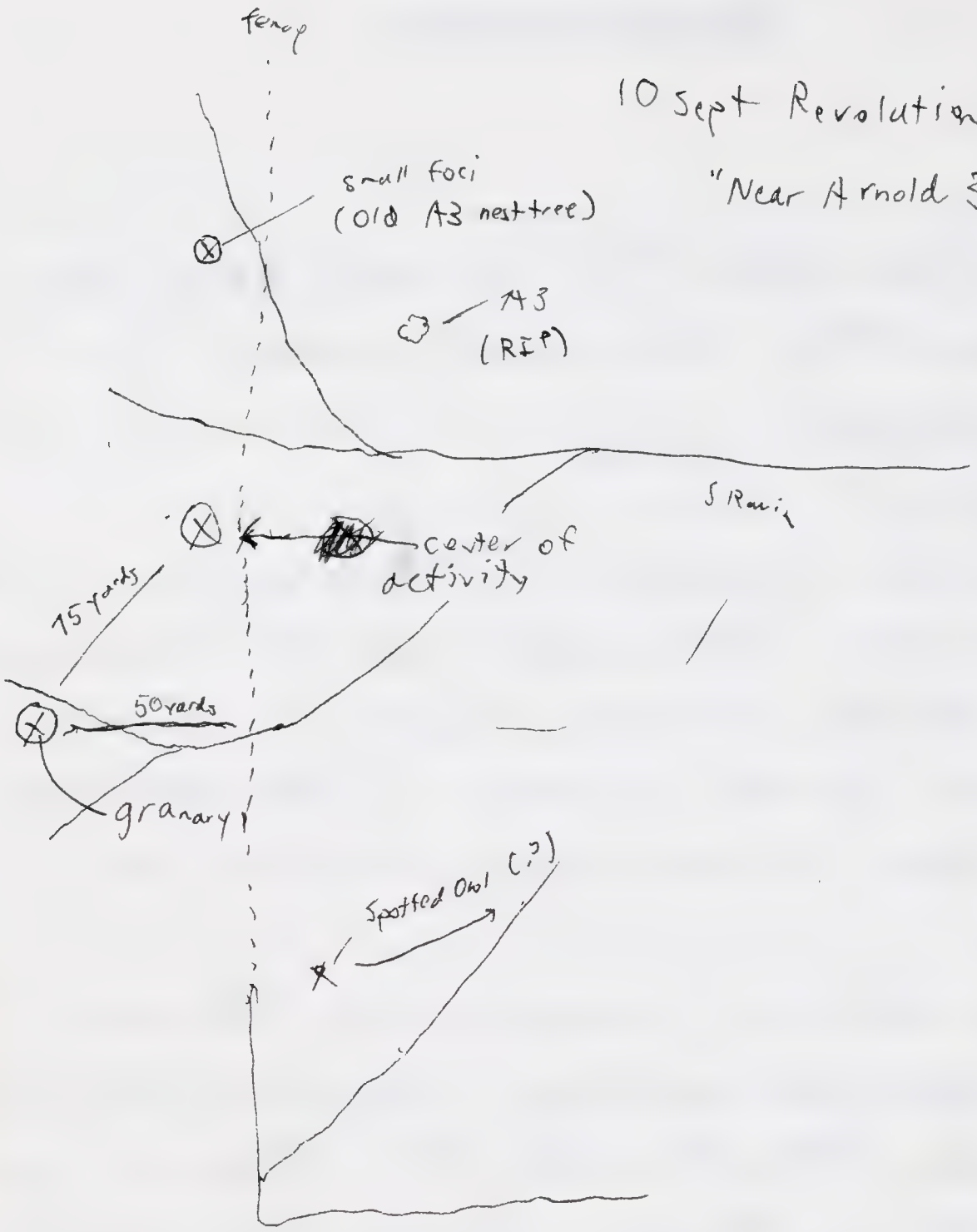
27 Aug 0815 Lots of commotion! A revolution? NB ♂ drumming in old A3 nest tree. Also a quick look at Orange/DBlue/Yellow (c) which could be ♂626 from Gate (!) or ♂321 from Black Oak, if I read leg wrong. 0845, Nope, looks like a NB family (at least 1 baby) intruding from lambert area.

10 Sept Start 0835, All kinds of commotion in the A3 area, garrickts, lots of wakas, mountings, chasings, urkts, the whole business. Definitely looks like a BRC. Center is very weird, on SW side of S Ravine (map on back) Believe I see ♀621 white-Or/white-or, but not positive. 0910, I also see ♂123 DBlue/LBlue-Orange. So what's all the commotion, unless this really is a A3 (or something) revolution. ♂123 was with I think a banded ♀ Juv, so that bears looking at.

This revolution looks ♂ oriented, but not yet sure. Over at the main event area, apparently nobody is banded. I think UA2 birds just peripheral. Question is, why is there revolution activity here? One Blue Oak with just the scantest number (<50) of rotten-looking storage holes. 0940, things dying down a bit. going to look around. Bingo, I find the granary, about 30 yards west of the fence line. Nice big Valley Oak, NO acorns, and no activity here. All the

10 Sept Revolution

"Near Arnold 3"



Melanerpes formicivorus

Upper Arnold 2 (and vicinity)

10 Sept action is 75 yards NE. I estimate at least 8 birds involved in this revolution. Back at 11 after exploring. Still action, pretty good pace. I think there are 4 birds (2♂♂, 2♀♀) looking chummy, and I think the ♂♂ are doing the chasing.

Lots of spillover action in the old A3 arena. J5bb Black/Or-Blk from A1 here, looking like ♂, perhaps.

11 Sept At 0830, still lots of waking, but not as much action at yesterdays. 4 NB birds (both sexes) seem to be hanging around the A3 canyon. a ♂ + a ♀ seem very much attached to the old A3 Blue Oak sap tree.

1980 R.L. Mumme

Melanerpes formicivorus

Lower Arnold 2 — Hastings Reservation

27 April Start 0935. A ♂NB garricking in the granary. Both glean from fresh Valley Oak leaves 2(F). ♀507 Red/Metal here with him. Don't know why ♂841 would be garricking, perhaps this a new ♂. A ♀NB here briefly, but not chased by ♂NB. She does not hang around, however. End 0950. Red tail flies near, ♀507 alarm calls!

27 Aug Start 1045. J611 DBlue-white/LGreen-white flycatching in Big Valley Oak, then in Dead Blue Oak. In hide; Nothing. End 1130.

11 Sept Good census here, ♀507 Red/M, ♂610 Yellow-Black/Yellow M/Yellow-Blk, J611 DBlue-wht/LGreen-wht, probably complete. Looks bad for the chicken bird, J612, No sign of him.

1980 R.C. Mumme

Melanerpes formicivorus

Lambert — Hastings Reservation

27 Aug Start 0900. J582 (Blue-Black/Metal) here looking like a solid ♂. Very adult-looking plumage. Commotion here, but, a complete census NB ♀ and NB ♂ here, NB ♀ being chased by NB ♀ 833 (?). ♂ 284 (m/DGreen-orange), J581 (Yellow/DGreen), and J583 (BPink/m), and J582 (BPink/Mauve) all here. All 3 juvs look like they are in male plumage, so perhaps they haven't started molt after all. ♂/J583 harvests a huge Black Oak acorn. End 1000.

17 Sept Roosting. Confusing, but I saw at least 3 birds, One flying into the nest tree below the granary and two disappearing into the fence line tree (the north tree of the 2)

1980 R.L. Mumme

Melanerpes formicivorus

Warp 5

4 June I wander around up here after seeing birds here from Road 1. No nests found, but a couple of good-looking holes in a big Black Oak SE of the granary, in the canyon just "downstream" from Valhalla canyon.

8 June Watching from PO Hill, a see a bird feeding a fledgling in the granary! Looks like they've already done it.

23 July Roosting after walter sets ambush. 4 birds roost in the lower Black Oak hole. At one time, 5 were in, but one flew out late. At least 6 birds in the group, however.

24 July Successful Ambush! 4 birds (2 ad ♂, 1 ad ♀, 1 juv molting into ♀ (?) plumage. At least 2 birds (I suspect both juveniles) still remain.

1980 R.L. Mumme

Melanerpes formicivorus

Pipeline — Hastings Reservation

15 April — Driving past at 1500, I am amazed to see a ♀ AW flycatching from the "granary" sycamore! Couldn't determine band status with certainty, but I believe ♀NB. Whether she stays around, or merely visiting, remains to be seen.

16 April — Nobody here, despite 3 or 4 trips past. Guess it was just a fluke.

5 Oct — Holy Bananas, 3 birds in the granary here at 1100 (1000)! a NB♀, a NB♂, plus another! Even saw one with an acorn! 1105, all have flown off. First time I've seen birds here since 15 April. Even heard wakas, perhaps warp 5 birds.

1980 Ronald L. Mumme

Melanerpes formicivorus

Poison Oak Hill — Hastings Reservation

26 Jan NB ♀, plus a banded ♂ White / (Red-White)? Metal / (D Pink-White)??, here at 1240 at the 1st territory. A third bird as well

Hermit Thrush

Hastings Reservation

29 Nov Walked up to the Arnold with Laurie Drinkwater today, stopping at the cabin to see what's been going on at the spring. It has been quite dry all fall, with essentially no rain. High overcast at about 1300 hrs, I was surprised to see ~10 Hermit Thrushes congregating about, drinking! Interesting, since this (1) suggests a method to catch and band, and (2) leads to questions about winter spacing. Presumably, they are territorial, and spring observation does not reject this, since Pam had lots of separate Brown Towhees at the spring. Also drinking at the spring were many Golden-crowned sparrows, 1 B Towhee. Some aggression seen among the Hermit Thrushes, and I saw as many as 6 gathering around the water tray at one time.

15 Dec First big day of actually trying to work on these guys, Thanks to Dave Winkler + Suzanne Morse, we set up + ran some mist nets at the 2 watertroughs along S Hill. See reverse for net-set-up. Believe it or not, 12 HT's captured + color banded (with stolen bands from Pam). Best success came right at dusk. Inspection of shit, looked like birds have been eating Madrone berries.

Aging -- According to the banding manual, 1st yr birds should have "buffy shaft streaks" on 2° coverts & tertials. We found no birds like this, but about half had buffy tips to those feathers, a characteristic the banding manual said was unreliable. Still,

Net setup 15-16 Dec 1980

15 Dec = 12 birds (+1 recapture) (most at dusk)

all but 2 Big Creek nets

nets run 10:30 - 1:30

3:00 - 5:00

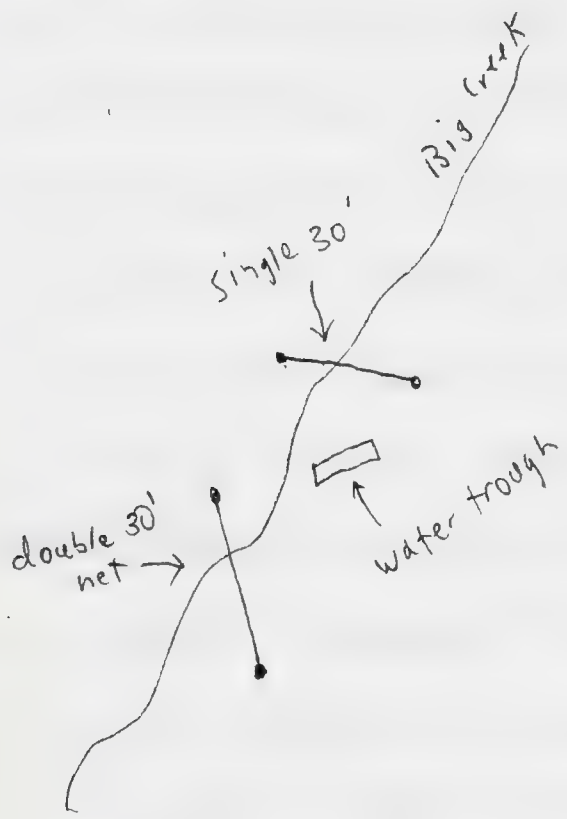
S Hill nets only run 16 Dec

07:45 - 09:30

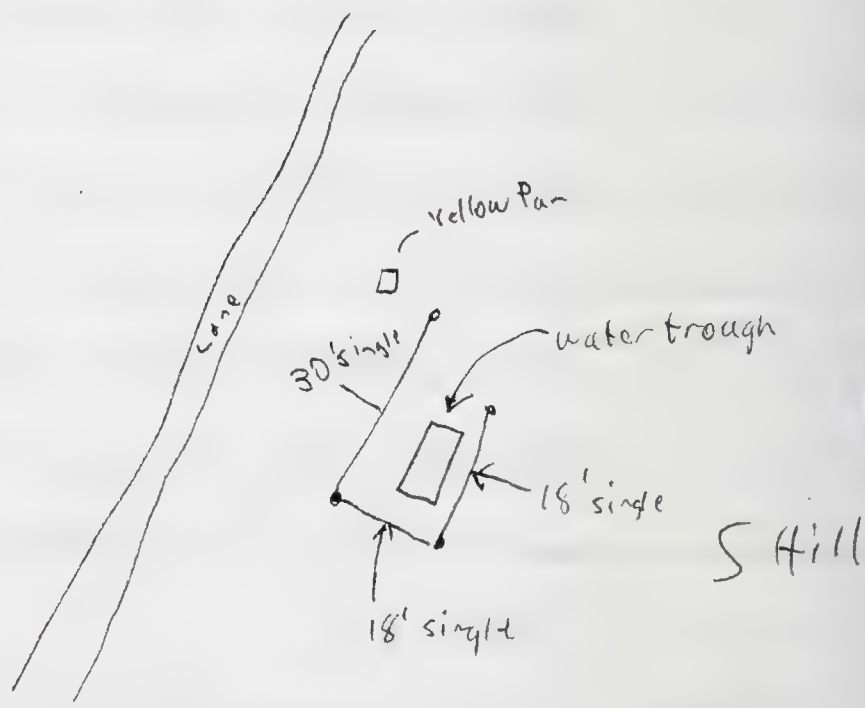
4 birds

(1 banded 15 Dec)

3 unbanded



Long Field



Hermit Thrush

Hastings Reservation.

(15 Dec) it seems unlikely that all the birds were captured were AHT. Furthermore, the only known AHT bird (banded by Pam last winter) lacked the buffy tips, so it is currently not clear

16 Dec Ran the SH trough nets from 0745-0930, catching 3 new HT's, One already banded

18 Dec Went looking for banded birds today, 0800-1200, 1530-1700, and was mostly disappointed. See map on back for areas covered. In the big morning survey on the slope of SHill, I saw 0 banded thrushes! 13 unbanded thrushes

I also saw:

① Lots of birds eating Madrone berries, as expected

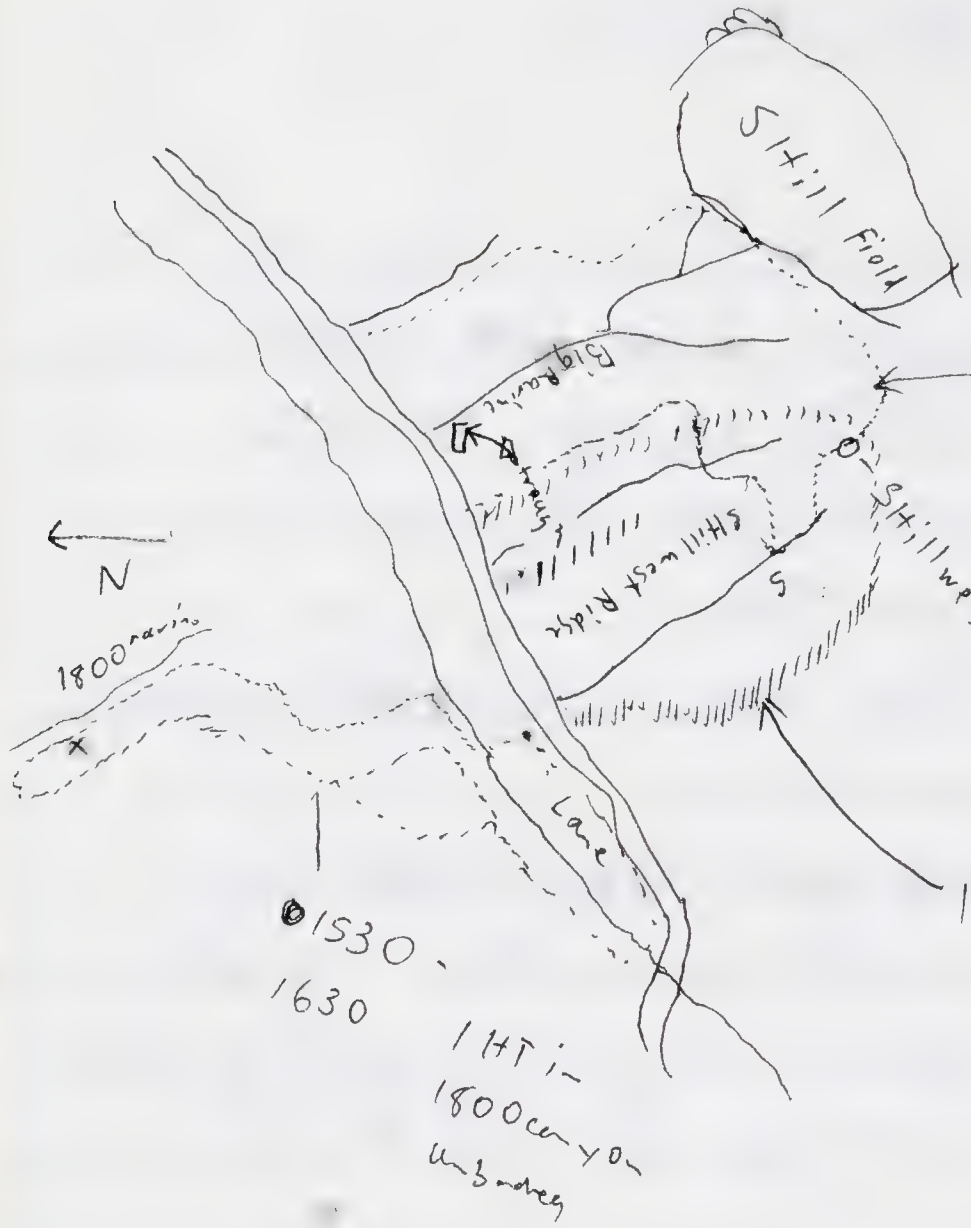
② Evidence that at big fruit trees, birds are not always territorial: At the head of Big Ravine, lots of madrones, 2-3 thrushes in one tree at the same time. Occasionally I did see quick chases, but couldn't tell what was going on. Regardless, lots of overlap in ranges in that area. In other places, I saw single birds that could have been on territories, I suppose.

In the afternoon, I surveyed all the suitable habitat I could find on the East face of Haystack, seeing only one NB HT in the upper part of 1800 ravine.

Finally, I watched the SH water trough at dusk: 1 NB HT, and Finally, Red-M/DBlue, the same bird caught there 15 + 16 Dec, Where are all the others?

19 Dec Another try at finding HTs. In the late AM I cruise

18 Dec 1980 HT survey



area surveyed 0800-1200 18 Dec
13 HTs' scr-well
10 banded

19 Dec
1300 - 1530
3 HT, only, in SHwest South Ravine (0 in N Ravine)
see notes

Hermit Thrush

Hastings Reservation

(19 Dec) up and down Big Creek, seeing about 10 Hermit Thrushes, only one banded, LPnk/M/LPnk, and that was on 2 occasions right next to the water trough. Also thought I saw another banded bird, Orange Metal/(?), near the water trough. However, I did learn that there is a pretty constant flow of Thrushes between the Big Creek willows and the side of Still. This was very apparent by sitting in long field and watching the willows.

I saw ~~[illegible]~~ zero HT's downstream of the water trough along Big Creek (to 1st crossing). I then surveyed along the two ravines bounding the SHwest ~~Ravine~~ Ridge. I saw no HTs along the north ravine, 3 NB HTs on the south ravine. I also learned in the S. Ravine that HT's come in to my Eastern Screech Owl whistles. Perhaps if I tried this in the N Ravine, I might have seen other HTs.

The question still remains: Where are the other Hermit Thrushes. Still one large section of SHill I haven't surveyed yet, so perhaps there

21 Dec Pam, Walter, I run the two nets on BC, one 18 ft net on the SH trough, for an hour and a half (3:30 - 5:00 pm) catching one more HT, this time banded with #1 bands. Cloudy, light drizzle.

23 Dec More searching for HTs on the side of School Hill. Today I covered the ~~[illegible]~~ entire north slope ~~[illegible]~~ roughly the area between two trails ("Red House trail", "main trail") map on back

1030 - 1130

1600 - 1500

6 HTs
none color-banded
One metal banded

Hermit Thrush

Hastings Reservation

(23 Dec) I saw maybe 5 HTs, all of which looked like they were being territorial. One, just below the field (between it and the main canyon) was metal banded on the right leg. In this area of SHill, there were few fruit-bearing madrones, but a lot of heavily laden toyon bushes, and that seemed to be where the birds were basing their operations. Also saw a few chases, and the one metal banded bird seemed to stay in one area. Still, no color banded birds. That means in my SHill censusing, I've seen 22 HTs away from Big Creek, None of which were color banded (out of a possible 15-16).

24 Dec Ran the BC nets and two SH trough nets today, 1100 - 1715, catching no Hermit Thrushes

25 Dec A Christmas net run, 0745 - 1030, I catch one new bird (see list). Late in the morning I also recaptured old Yellow-on/Yellow (Bird #1), after resighting him earlier 50 ft upstream of the Big Willow thicket on Big Creek. I also resighted Red Metal/Black near the Big Creek water trough, at 0915. I also saw a color banded bird drinking from the Yellow Pan trap next to the SHill trough, but it flew before I got a good reading on the bands.

27 Dec Run the nets all day, the two Big Creek nets 0800-1700, and the School Hill trough nets from 0800 - 1300. At 1300, I discovered a pool of water in Big Creek behind the large willow thicket. Suspecting that the pool was the basis for the attractiveness of that area of willows, I placed one of the SH nets

Hermit Thrush

Hastings Reservation

(27 Dec) in front of the pool at the back of the thicket, paralleling Big Creek. I caught 3 thrushes in that net, and 3 in the other. I also resighted LBlue-Metal/LBlu near the BC water trough. The new single net ran from 1345 - 1715. See capture records, etc.

1980 R. L. Mumme

Hermit Thrush

Captures

Hastings Reservation

15 Dec	Bird #	Band	Color (URight - LRight / Left)	nets
	1	1231-75533	Yellow - Metal / Yellow	Big Creek
	2	34	D Blue - M / DBlue	"
	3	35	Red - M / Red	"
	4	930-13228	LBlue - M / LBlue	"
	5	1231-75536	Orange - M / Or	"
	6	37	Black - M / Black	"
	7	38	White - M / White	"
	8	39	DBlue - M / LGreen	"
	9	40	LPnk - M / LPnk	"
	10	41	Mauve - M / Yellow	BC or SHill
	11	42	DGrn - M / Orange	BC or SHill
	12	43	Red - M / DBlue	SHill
16 Dec	13	44	Wht - M / DBlue	SHill
	14	45	Yellow - M / DBlue	"
	15	46	Red - M / BlK	"
20 Dec	16	930-13320	Or - M / White	BC double net down
25 Dec	17	13321	LBlue - M / DBlue	BC single (cap)
27 Dec	18	13322	Yellow - M / LBlue	BC single
	19	1231-75654	Yellow / Red Metal (metal Low left, By John)	BC double
	20	930-13323	DBlue - M / Orange	BC water Hole 18
	21	24	Orange M / LBlue	"
	22	25	DBlue - M / Red	"
	23	26	LGreen M / Yellow	BC single 30
11 Jan	24	27	LBlue - M / Orange	"
	25	28	LGreen - M / Mauve	BC water 18

Hermit Thrush

Hastings Reservation

11 Jan Started 3 nets up at 0830, the two Big Creek water trough sets, plus the new 18 foot set by the small pool in the big willow thicket. The small pool is getting quite a bit smaller, and should be dry soon. No rain in over a month.

Yesterday I wandered around up at the head of the Big School Hill Canyon. About 5 HTs were hanging around up there, all of course unbanded.

Nets down 1230, only 2 Thrushes caught, both unbanded. Saw about 10 HTs down along the creek, all NB except 1-2 with metal only, right leg, and 1 DBlue-Metal/? Size 1 bands anyway, so it had to be either #20 or #22. Orange or Red, Still, do we have a nearly infinite # of HTs?

March 22 Nancy reports seeing Yellow Metal / Yellow by the water trough along Big Creek

15 Dec
1980.

Hermit Thrush
Long Field water trough,

1. lower right 1231 75533 (1) Yellow-Metal / Yellow
yellow above on lower right * recaptured at
yellow lower left 17:00 *

culmen 12.4 ~~stomach sample~~
tarsus 29.9
chord 86.0 Bar.
C wght 25.5 g
age ~~bird of the year~~. probably adult

recaptured BC 30 25 Dec 1100

recaptured (?) 25 Dec upstream from Big Thicket on BC

1231 755[illegible] 34 D Blue ? Metal / P Blue

culmen 13.0 shit
tarsus 27.8 fat scale 1
Chord 89.0 flatted
3C wgh 26.0 g
age adult

Towhee 842-92815 1440 hrs Water trough, L. Field,
mistnetted. 41.5

HT 1231 75535 AH9 Red-Metal / Red
Chord 89 shit
culmen (15.9) 12.2 (to bone / to feathers)
BC tarsus 29.9
fat 2
Wt. 26.2

BC

CRight

HT 930 - 13228 LBlue-M / LBlue

banded with one band 2

wt. 27.5

molting outer ~~right~~ left 3 rettrices

fat = 1

first bird to lack buffy tips to greater coverts

resighted 27 Dec, BC trough, chasing NB bird, perhaps (Yellow M / LBlue), caught more late

CR LL

36 Orange - M / Orange AHY no buff spots

BC
culmen 11.3
tarsus 29.7
chord 87
fat 1
weight 24.8

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37 Black - M / Black

AHY no buff spots

culmen 13.4
tarsus 29.8
BC chord 91
fat 2
weight 27.0

~~CR~~ LL no buff

38 white metal / white AHY

16:45 culmen 12.6
tarsus 28.6
BC chord 85.
fat 1
wght 25.5

dark blue ~~light green~~ - metal / light gr

39 AHY

culmen 14.3 wght 24.0
BC tarsus 26.2 no Bu
chord 84
fat 1

#40 light pink - m/lght pin
culmen 13.4
tarsus 28.0
chord 88 ATY
fat 1 no butty
wght escaped
resighted at trough 19 Dec

#41 mauve-metal/yellow
? culmen 14.2
tarsus 30.3
chord 86.0 ? ATY has
fat 2 butty edges
wght. 26.5

#42 dark green-metal/orange
culmen 13.5
tarsus 28.5 age ATY
chord 90 no buff
fat 1
wght 24.5

#43 red-metal/dark blue | Still trough
culmen 13.4
tarsus 29.5
chord 90 age HY?
fat 2 butty edges
wght 26.0

recaptured at Stt ~~spring~~ trough 16 Dec 0815
very tired when pulled out
resighted at Stt trough 1650 hrs 18 Dec

Right / Left

	W	W	Lip	Y	Or	Red	Mauve	L Blue	D Blue	L Green	~~Blk~~ D Grn	Blk
W	X	X							X			
L. P			X									
Y				X				X	X			
Or	X	X			X			X				
Red						X			X			X
Mauve				X								
L Blue					X			X	X			
D Blue					X	X			X	X		
L Green				X			X					
D Dark Green					X							
Blk												X

plus Yellow / Red metal

~~Or/LBl~~ M

DBlue M / Yellow

LBlue M / Red

DBlue M / Or

1300 - 1330, SH nets come down, One left Set up by BC water hole

27 Dec

DBlue-M / Orange Juv

23 Small Buffy tips

wing 85 fat 2

culmen 13.1 BC Water hole 18

tarsus 29.7 1430

weight 26.5 g

Orange M / LBlue

#24 BC water hole

wing 89 fat 1 1515

Culmen 13.1 weight 24 g

tarsus 29.0 Juv buffy tip

DBlue M / Red #25 1515

wing 86 adult no buff

culmen 14.0

tarsus 26.4 weight 26 fat 2

1620

LGreen M / Yellow #26 adult no buff BC 30

wing 92

culmen 13.7 fat 2

tarsus 30.8 weight 26.5

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11 Jan 1981

LBlue M / Or #27 Juv (HY)

molt on breast, injured

wing 85

culmen 12.6 fat 1

tarsus 28.0 BC 30

weight 21.5 0900

LGrn M / Mauve #28 HY

wing 86 fat 1 Juvenile 1020

Culmen 12.5 wt 25.5 Water hole

tarsus 29.8 lost tail feathers buff

11 Jan (cont)

LBlue m / Red

16 Dec

#44 School Hill Spring — Wh-M / DBlue
AHY no buff spots

Culm 12.8
Tars. 28.0
Chord 88
Fat 2
Wt. 26.2

#45 School Spng. — Y-M / DBlue
Slight small buff spots on greater coverts

Culm 13.4
Tars. 28.2
chord 86
Fat 0
Wt. 26.0

#46 School shit scolby — Red M / Black
Small buff spots rugr. cov.

culm 13.8
Tars. 29.1
Chord 91.
Fat 1
Wt. 26.5

reSighted BC 25 Dec 0915 trough
chased by NBird

21 Dec 930 13320 no butt
1645 Big Creek lower nest
13.7 culmen — Or-M / Wht
chord 90
Fat 1
wt 26

Scrubday BC 30
Purple Finch BC 40
Scrub Jay BC 30

~~24~~ Dec 1980

2 BC nets up, 2 18 foot 5ft trough nets up by 1100
Nets down 1715 NO Hermit Thrushes

#2 | 25 Dec 1980 nets up 0745
LBlue-M / D Blue 0810 BC 30
wing 90
culmen 14.1 adult no bufe
tarsus 29.5 fat 2
weight 27.5

~~22 Yellow-M / LBlue~~

B Towhee
LBlu
P Grea
702 Metal
57147 R
(L)

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27 Dec 1980 nets up 0800 1000
#22
Yellow-M / LBlue Juv (Buff tips)
wing 80 81 flattened
culmen 13.9 may have been being chased
tarsus 27.4 by LBlue M / LBlue
fat 1 got trough just before
weight 23.5 being caught.

~~Blue Red M / Yelow Blue Metal Pete w~~ 1110 40 BC
already banded 1231 75654 on Left become
very slight bufe, worn Y - Red Metal
wing 88 tarsus 26.0 weight 24.0
culmen 14.1 fat 2

5 2 1 1